TOSHIBA

FILE NO. 2B0-200007

SERVICE MANUAL

CORDLESS TELEPHONE

FT-8800

PUBLISHED IN JAPAN, Sep., 2000

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SAFETY PRECAUTIONS

Before returning any models to the customer, a safety check of the entire instrument should be made. The service technician must be sure that no protective device built into the instrument by the manufacture has become defective or inadvertently degraded during servicing.

1.WARNING:

Alterations of the design or circuitry of these models should not be made.

Any design changes or additions such as, but not limited to, circuit modifications, auxiliary speaker jacks, switches, grounding, active or passive circuitry, etc. may alter the safety characteristics of these models and potentially create a hazardous situation for the user.

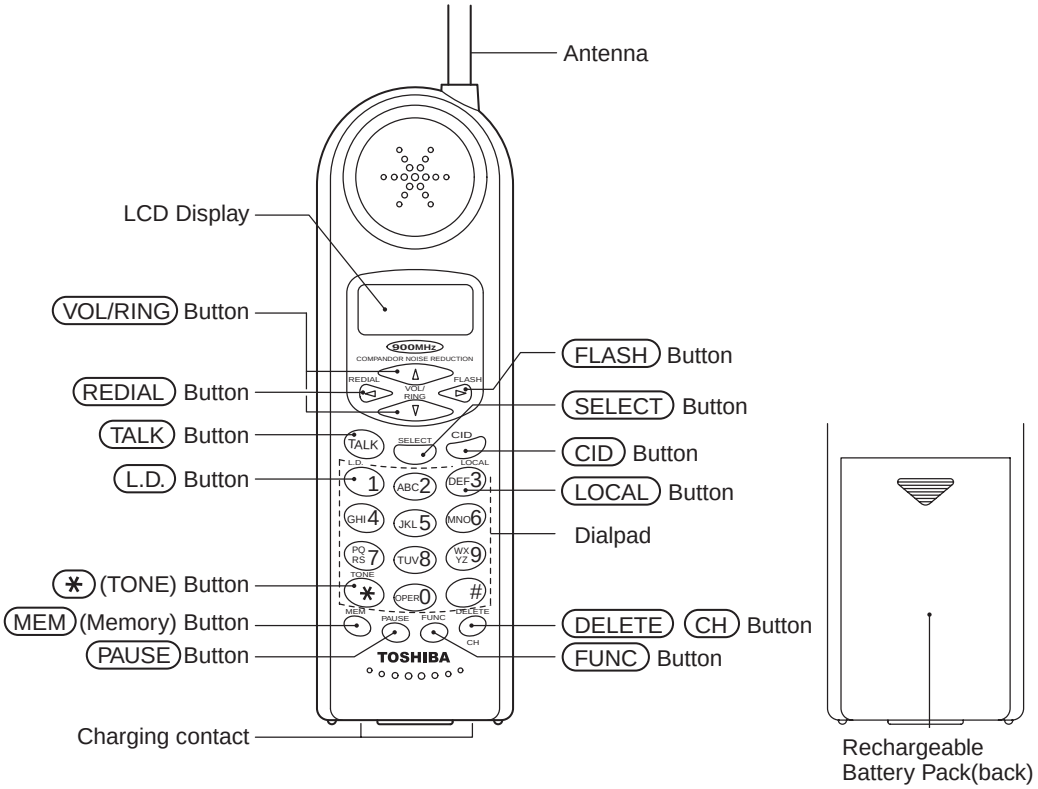
Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacturer of responsibility for personal injury or property damage resulting therefrom.

2.PRODUCT SAFETY NOTICE

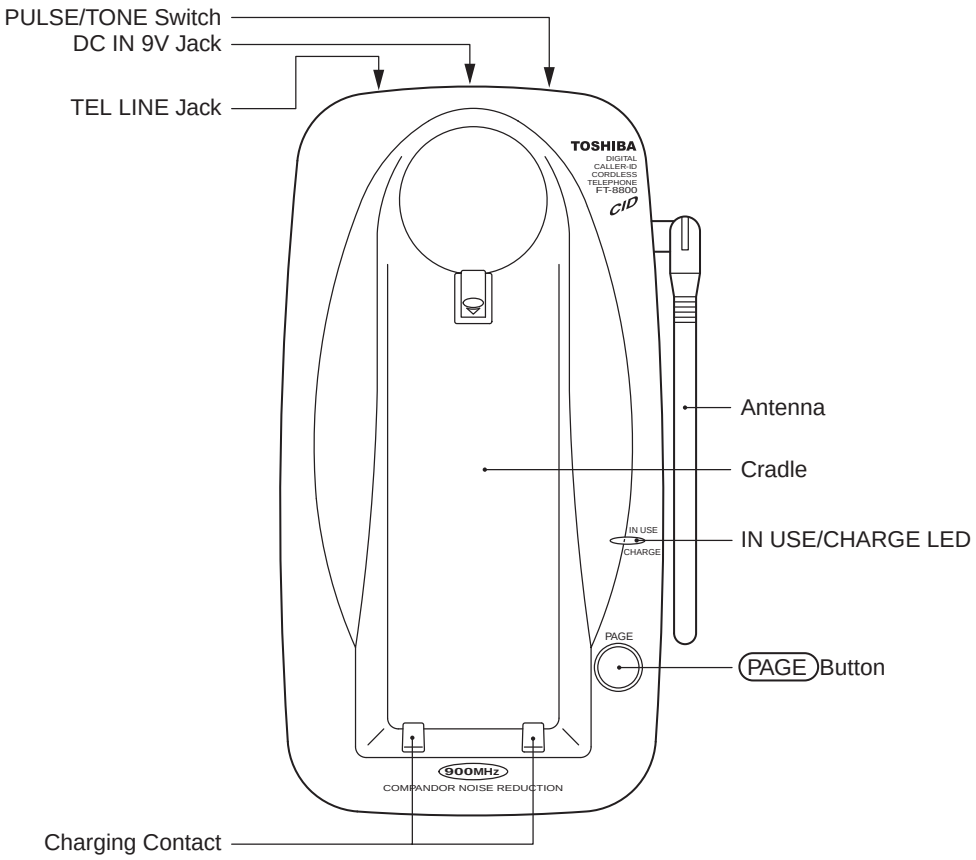
Many electrical and mechanical parts in this chassis have special characteristics. These characteristics often pass unnoticed and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts that have these special safety characteristics are identified in this manual and its supplements; electrical components having such features are indentified by a ⚠ in the schematic diagram and the parts list. Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts that do not have the same safety characteristics as specified in the parts list may create shock, fire or other hazards.

OPERATING CONTROLS

HANDSET CONTROLS AND FUNCTIONS



BASE UNIT CONTROLS AND FUNCTIONS

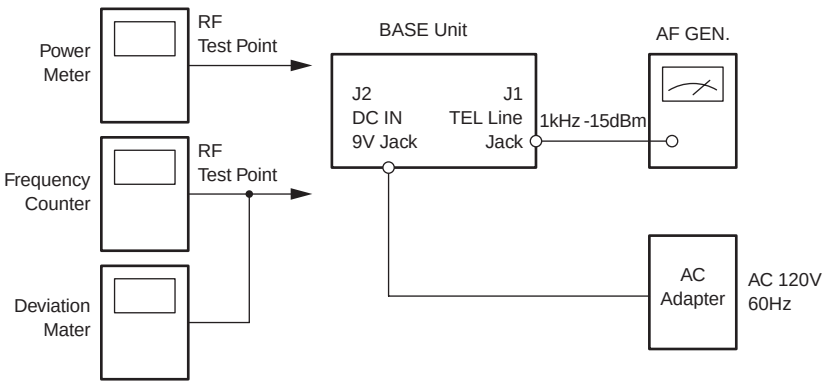


ALIGNMENT PROCEDURE

Base Unit

Transmitter Section

Connections



Preset

a) Connect the base RF unit to the base main unit.

b) Set the “TONE / PULSE” switch to PULSE.

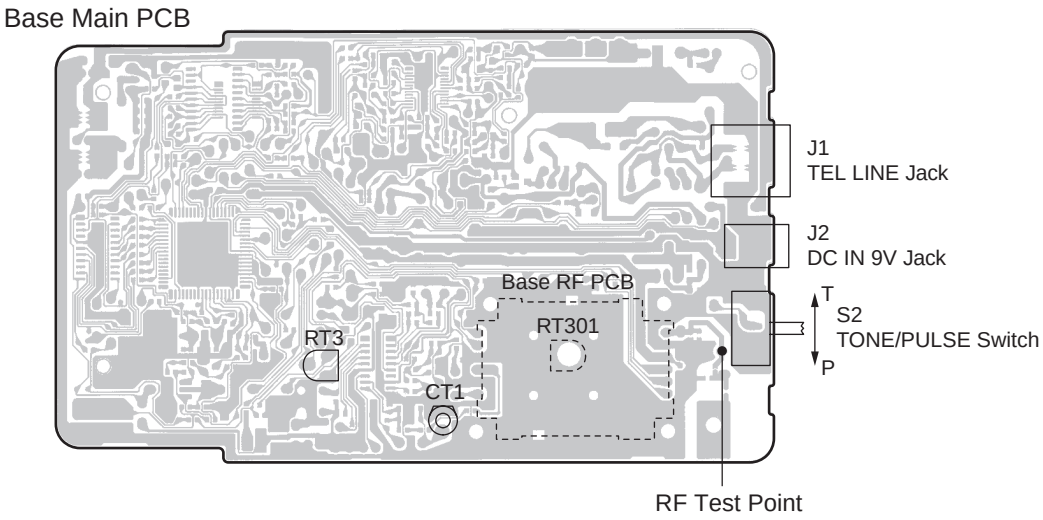
c) Connect the AC adapter to the base unit while pressing the “PAGE” key, and keep pressing it continuously for approximate 2 sectonds.

d) Release the “PAGE” key when entering TEST mode 1 with IN USE LED lighting.

Alignment Procedure

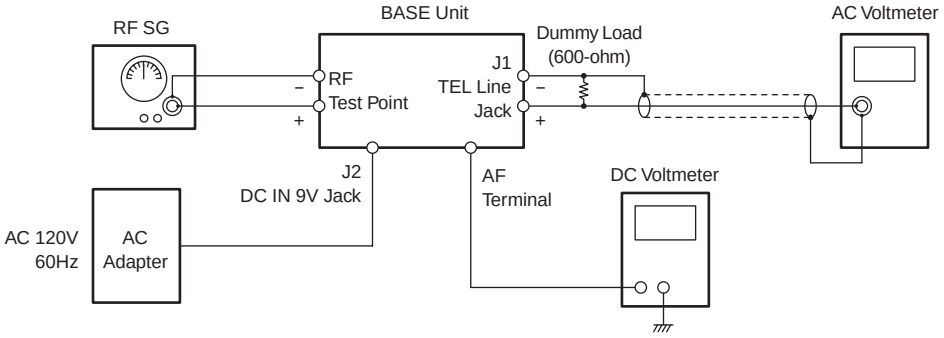
step	Adjustment	Remarks
1	RT301 (TX Power)	Connect the Power Meter to the RF test point on the Base MAIN PCB. Adjust RT301 for a -7dBm reading on the Power Meter.
2	CT1 (TX Frequency)	Connect the Frequency Counter to the RF test point on the Base MAIN PCB. Adjust CT1 to make sure that the frequency is 926.897468 MHz.
3	RT3 (TX Modulation)	Press the “PAGE” key to enter the TEST Mode 2. Connect the AF Generator to the TEL Line Jack on the Base Main PCB. Make sure that the output is 1 kHz -15dBm from the AF Generator. Connect the Deviation Meter to the RF test point on the Base MAIN PCB. Adjust RT3 to indicate ±8 kHz Dev.

Alignment Point Location on Base Main PCB and Base RF PCB



Receiver Section

Connections



Preset

a) Connect the base RF unit to the base main unit.

b) Set the “TONE/PULSE” switch to PULSE.

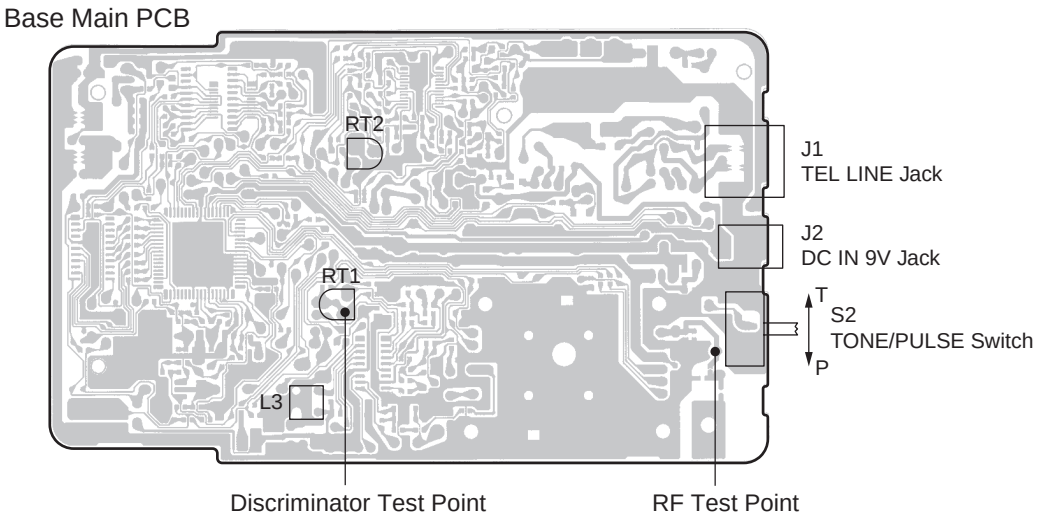
c) Connect the AC adapter to the base unit while pressing the “PAGE” key, and keep pressing it continuously for approximate 2 seconds.

d) Release the “PAGE” key when entering TEST mode 1 with IN USE LED lighting.

Alignment Procedure

step	Preset to	Adjustment	Remarks
1	SG: 1mV No modulation	L3 (Discriminator Voltage)	Press the “PAGE” key for 3 times to enter the TEST Mode 4. Connect the RF Signal Generator to the RF test point on the Base MAIN PCB. Make sure that the frequency is 902.952467 MHz. Connect the DC Voltmeter to the Discriminator test point. Adjust L3 to indicate DC 0.95 V.
2	SG: 1mV 1 kHz ±8kHz deviation	RT2 (RX AF Voltage)	Connect the AC Voltmeter across a 600-ohm dummy to the Telephone Line Jack. Adjust RT2 for a -11dBm reading on the AC voltmeter.
3	SG: -6.0 dBμV 1kHz ±8kHz Deviation	RT1 (SQ Point)	Press the “PAGE” key to enter the TEST Mode 5. Make sure that the frequency of RF SG output is 902.952467 MHz. Adjust RT1 to turn to the point where the CHG LED just turns on.

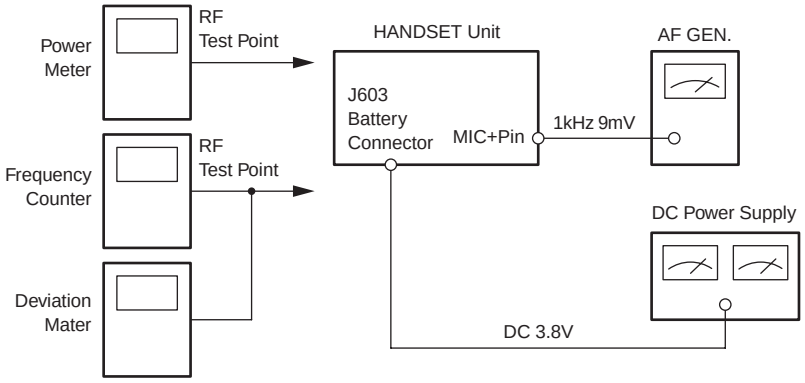
Alignment Point Location on Base Main PCB and Base RF PCB



Handset Unit

Transmitter Section

Connection



Preset

a) Connect the handseet RF unit to the handset main unit.

b) Connect DC power supply to battery connector on the handset unit.

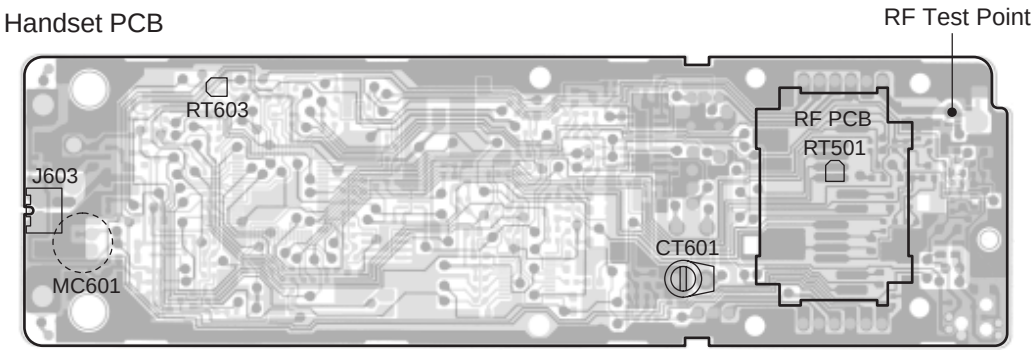
c) Turn the DC power supply On while pressing " * " and " # " keys, and keep pressing the keys continuously for approximate 2 seconds.

d) Release keys when entering TEST mode 1 with beep.

Alignment Procedure

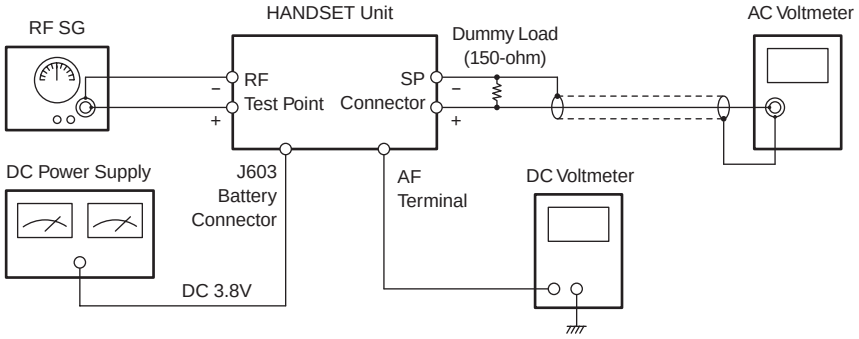
step	Adjustment	Remarks
1	RT501 (TX Power)	Connect the RF power Meter to the RF test point on the handset MAIN PCB. Adjust RT501 for a -5dBm reading on the Power Meter.
2	CT601 (TX Frequency)	Connect the Frequency Counter to the RF test point on the handset MAIN PCB. Adjust CT601 to make sure that the frequency is 903.052467 MHz.
3	RT603 (TX Modulation)	Press the “2” key to enter the TEST Mode 2. Connect the AF Generator to the MIC Connector make sure that the output is 1kHz 9mV from the AF Generator. Connect the Deviation Meter to the RF test point on the handset MAIN PCB. Adjust RT603 to indicate ±8 kHz Dev.

Alignment Point Location on Handset Main PCB and Handset RF PCB



Receiver Section

Connections



Preset

a) Connect the handset RF unit to the handset main unit.

b) Connect DC power supply to battery connector on the handset unit.

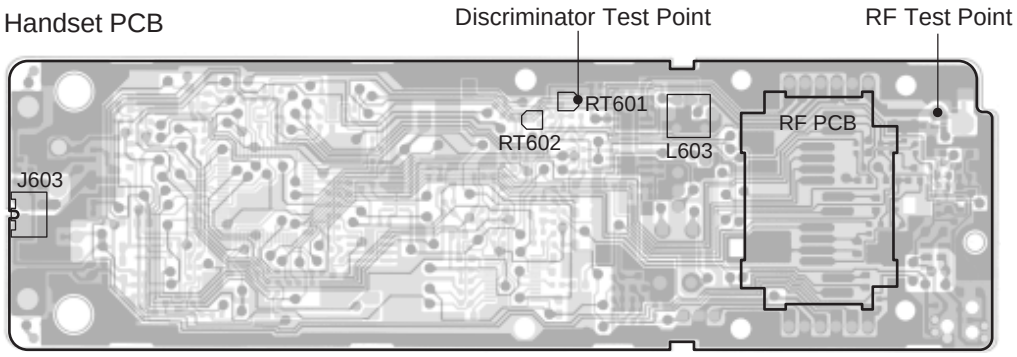
c) Turn the DC power supply ON while pressing " * " and " # " keys, and keep pressing the keys continuously for approximate 2 seconds.

d) Release keys when entering TEST mode 1 with beep.

Alignment Procedure

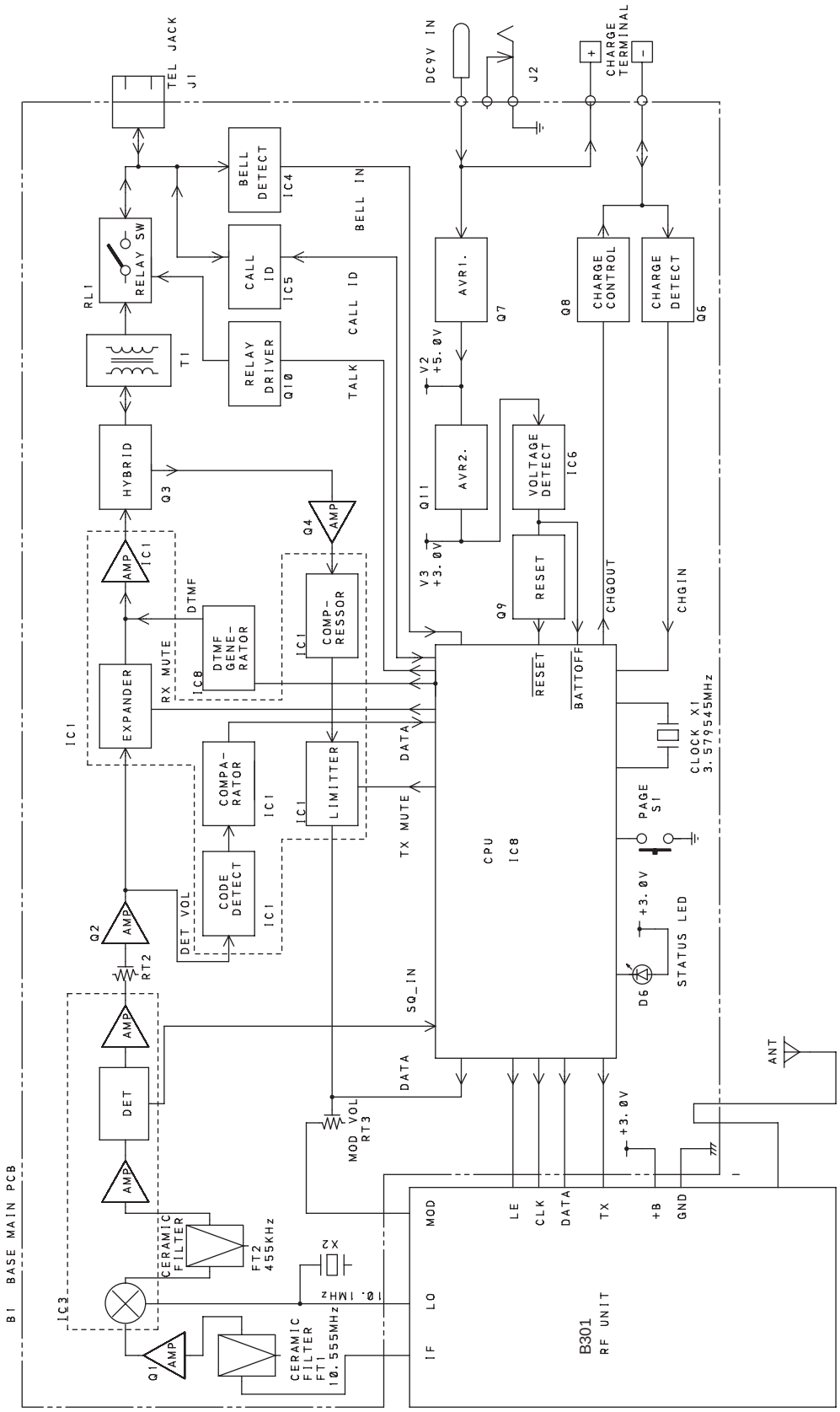
step	Preset to	Adjustment	Remarks
1	SG: 1mV No modulation	L603 (Discriminator Voltage)	Press the "4" key to enter the TEST Mode 4. Connect the RF Singal Generator to the RF test point on the handset MAIN PCB. Make sure that the frequency is 926.997467 MHz. Connect the DC Voltmeter to the Discriminator test point. Adjust L603 to indicate DC 0.85 V.
2	SG: 1mV 1 kHz ±8kHz deviation	RT602 (RX AF Voltage)	Connect the RF Signal Generator to the RF test point on the handset MAIN PCB. Make sure that the frequency is 926.997467 MHz. Connect the AC Voltmeter across a 150-ohm dummy to the MIC Connector. Adjust RT602 for a 100 mV reading on the AC Voltmeter.
3	SG: -6.0 dBμV 1kHz ±8kHz Deviation	RT601 (SQ Point)	Press the "5" key to enter the TEST Mode 5. Make sure that the frequency of RF SG output is 926.997467 MHz. Adjust RT601 to turn to the point where the Ringer just beeps.

Alignment Point Location on Handset Main PCB and Handset RF PCB

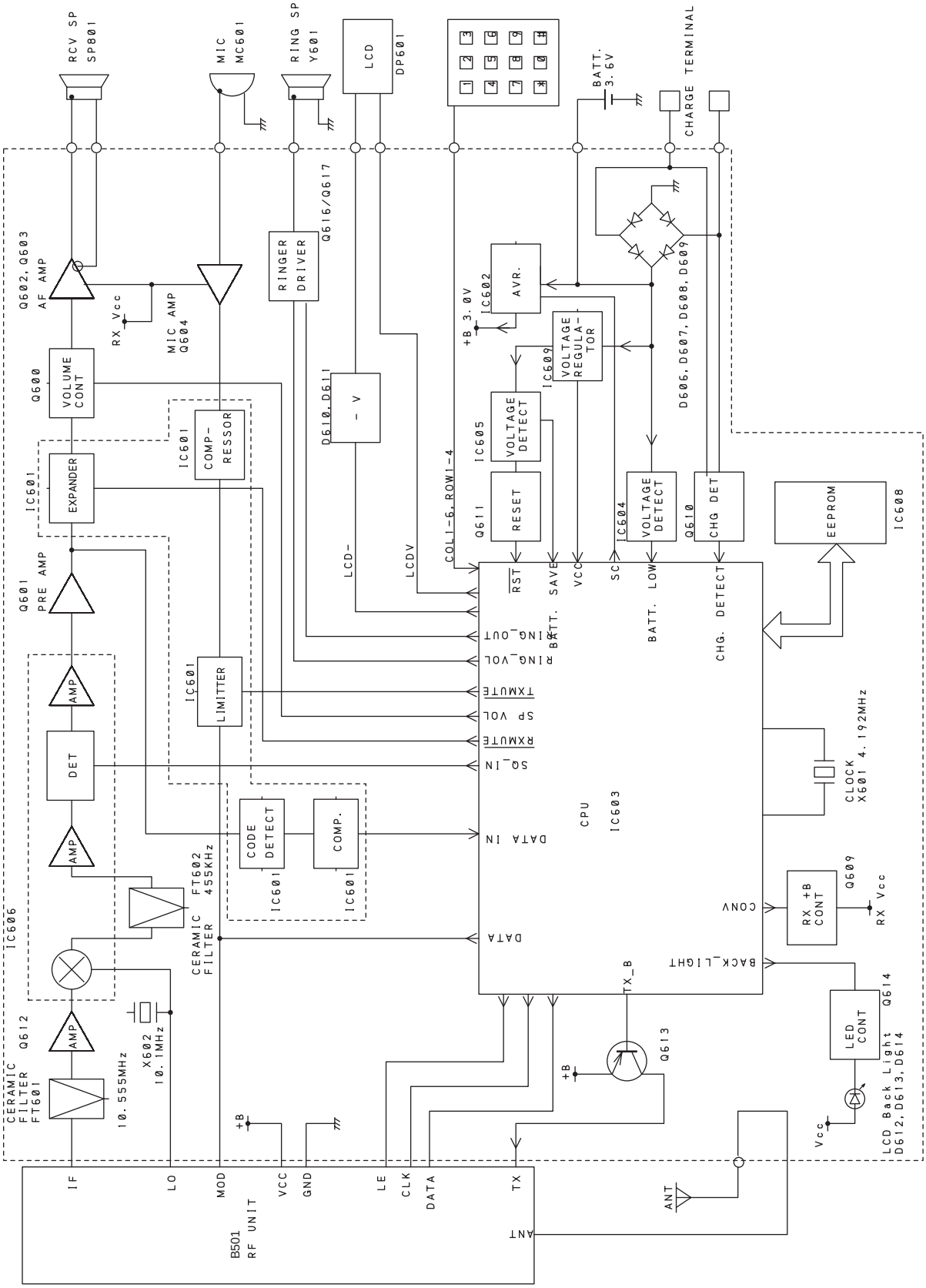


BLOCK DIAGRAMS

Base Unit

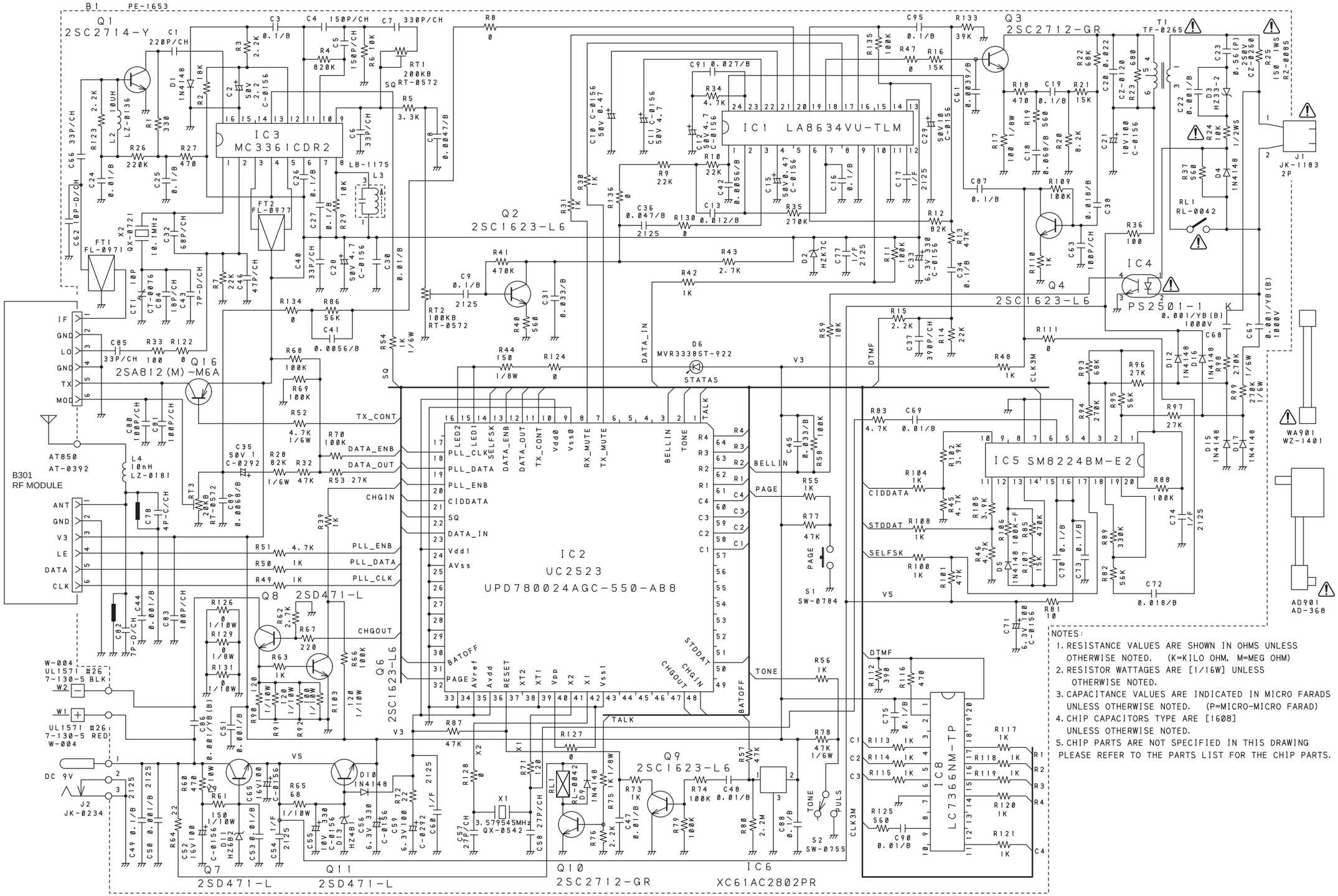


Handset


RCV SP
SP801
MIC
MC601
RING SP
Y601
LCD
DP601
BATT.
3.6V
CHARGE TERMINAL
Q602, Q603
AF AMP
RX Vcc
MIC AMP
Q604
RINGER
DRIVER
Q616/Q617
AVR.
IC602
+B 3.0V
VOLTAGE
REGULA-
TOR
IC609
D606, D607, D608, D609
Q600
VOLUME
CONT
D610, D611
- V
IC601
COMP-
RESSOR
IC605
VOLTAGE
DETECT
RESET
Q611
COL1-6, ROW1-4
LCD-
LCDV
IC601
EXPANDER
Q601
PRE AMP
AMP
DET
AMP
IC601
LIMITTER
RING_OUT
RING_VOL
TXMUTE
SP VOL
RXMUTE
SQ_IN
DATA IN
DATA
CPU
IC603
RST
SAVE
VCC
SCI
BATT. LOW
CHG. DETECT
IC604
VOLTAGE
DETECT
Q610
CHG DET
EEPROM
IC608
IC606
CERAMIC
FILTER
FT602
455KHz
CODE
DETECT
IC601
COMP.
IC601
CERAMIC
FILTER
FT601
Q612
AMP
10.555MHz
X602
10.1MHz
+B
CONV
RX +B
CONT
Q609
RX Vcc
CLOCK
X601 4.192MHz
BACK_LIGHT
TX_B
Q613
+B
LED
CONT
Q614
Vcc
LCD Back Light
D612, D613, D614
IF
LO
MOD
VCC
GND
LE
CLK
DATA
TX
ANT
B501
RF UNIT
ANT

SCHEMATIC DIAGRAMS

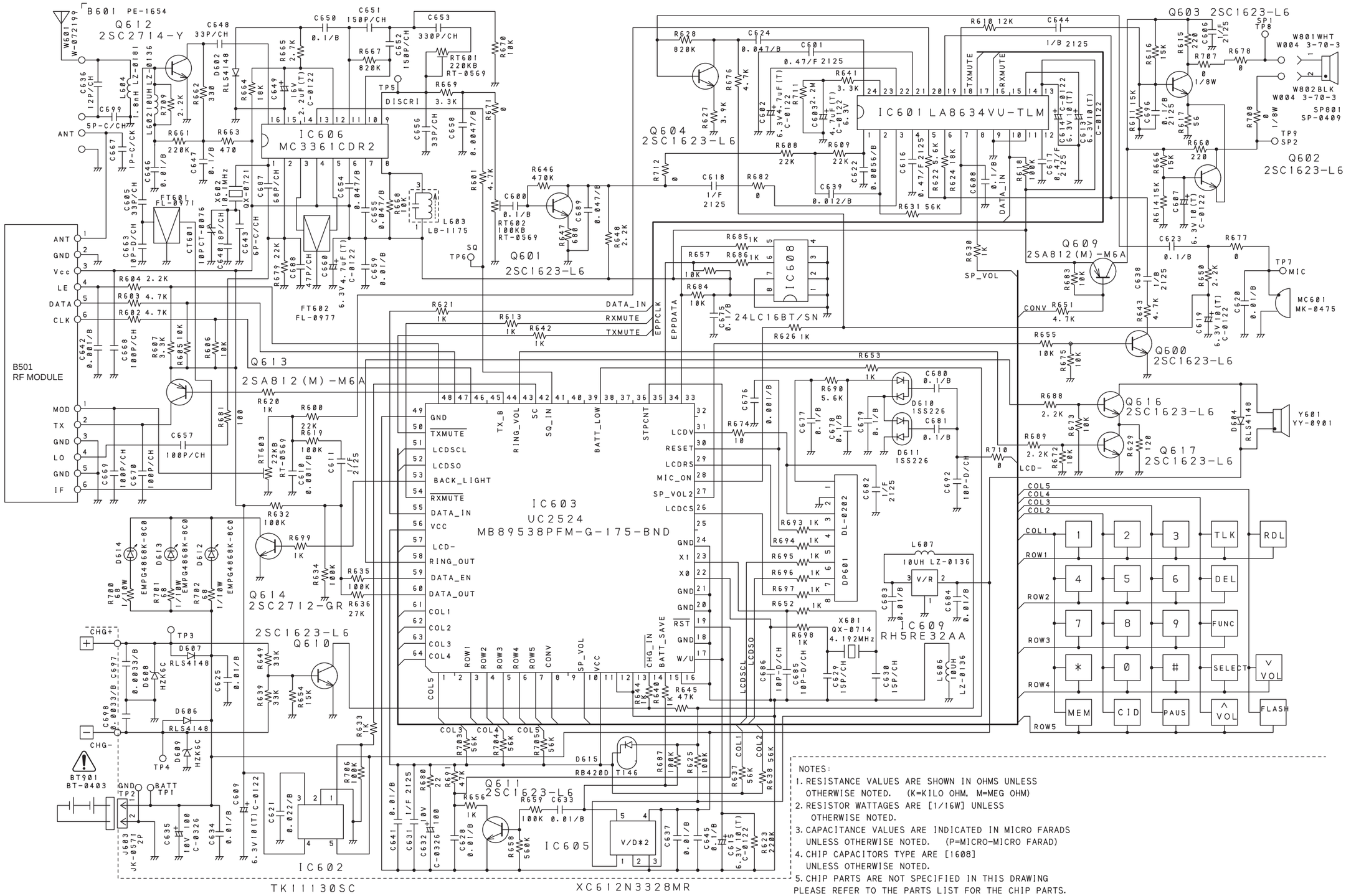
Base Unit



NOTES:

1. RESISTANCE VALUES ARE SHOWN IN OHMS UNLESS OTHERWISE NOTED. (K=KILO OHM, M=MEG OHM)
2. RESISTOR WATTAGES ARE [1/16W] UNLESS OTHERWISE NOTED.
3. CAPACITANCE VALUES ARE INDICATED IN MICRO FARADS UNLESS OTHERWISE NOTED. (P=MICRO-MICRO FARAD)
4. CHIP CAPACITORS TYPE ARE [1608] UNLESS OTHERWISE NOTED.
5. CHIP PARTS ARE NOT SPECIFIED IN THIS DRAWING PLEASE REFER TO THE PARTS LIST FOR THE CHIP PARTS.

Handset



NOTES:
1. RESISTANCE VALUES ARE SHOWN IN OHMS UNLESS OTHERWISE NOTED. (K=KILO OHM, M=MEG OHM)
2. RESISTOR WATTAGES ARE [1/16W] UNLESS OTHERWISE NOTED.
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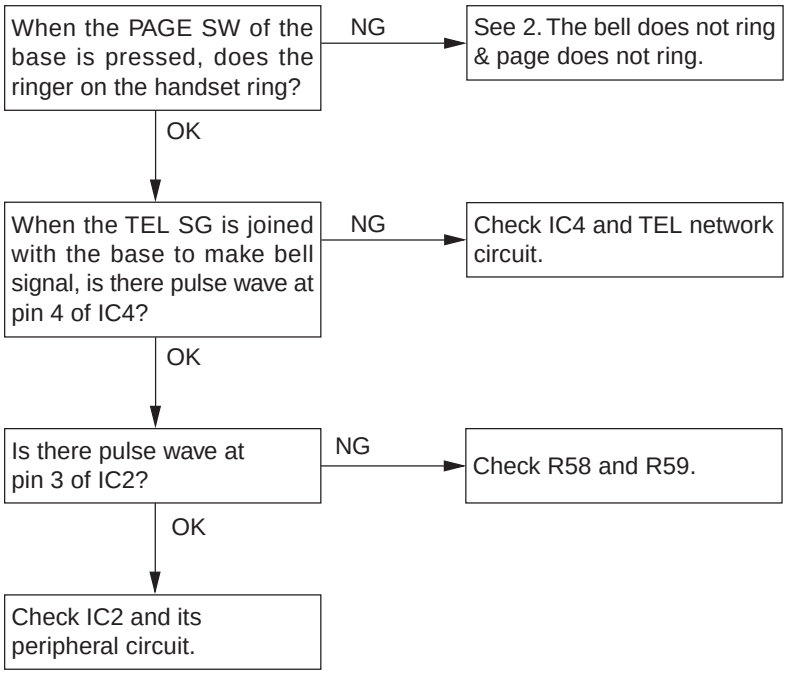
4. CHIP CAPACITORS TYPE ARE [1608] UNLESS OTHERWISE NOTED.
5. CHIP PARTS ARE NOT SPECIFIED IN THIS DRAWING PLEASE REFER TO THE PARTS LIST FOR THE CHIP PARTS.

TROUBLESHOOTING HINTS

1. The bell does not ring.

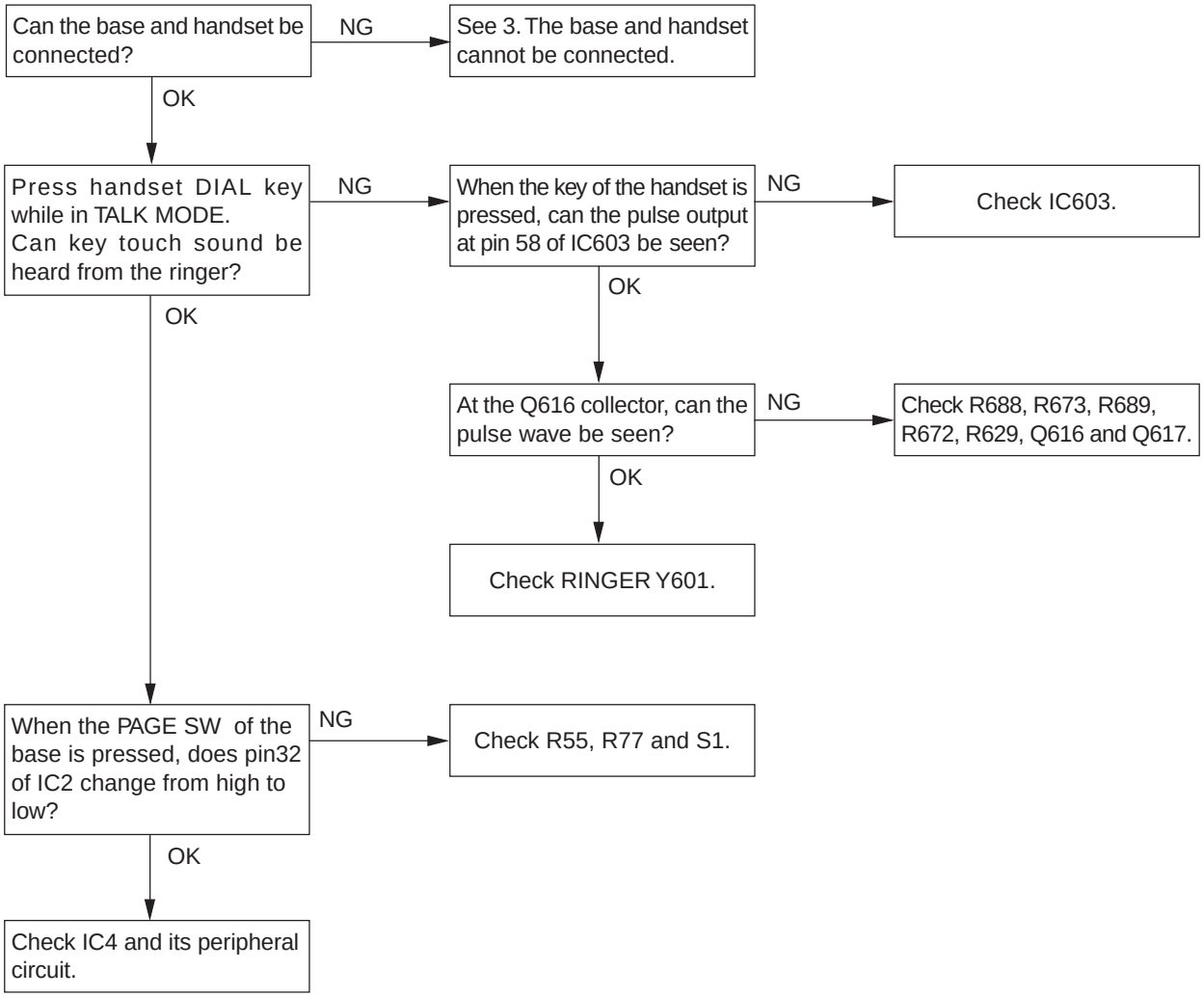

When the PAGE SW of the base is pressed, does the ringer on the handset ring?
NG
See 2. The bell does not ring & page does not ring.
OK
When the TEL SG is joined with the base to make bell signal, is there pulse wave at pin 4 of IC4?
NG
Check IC4 and TEL network circuit.
OK
Is there pulse wave at pin 3 of IC2?
NG
Check R58 and R59.
OK
Check IC2 and its peripheral circuit.

Deletion of the Caller ID memory

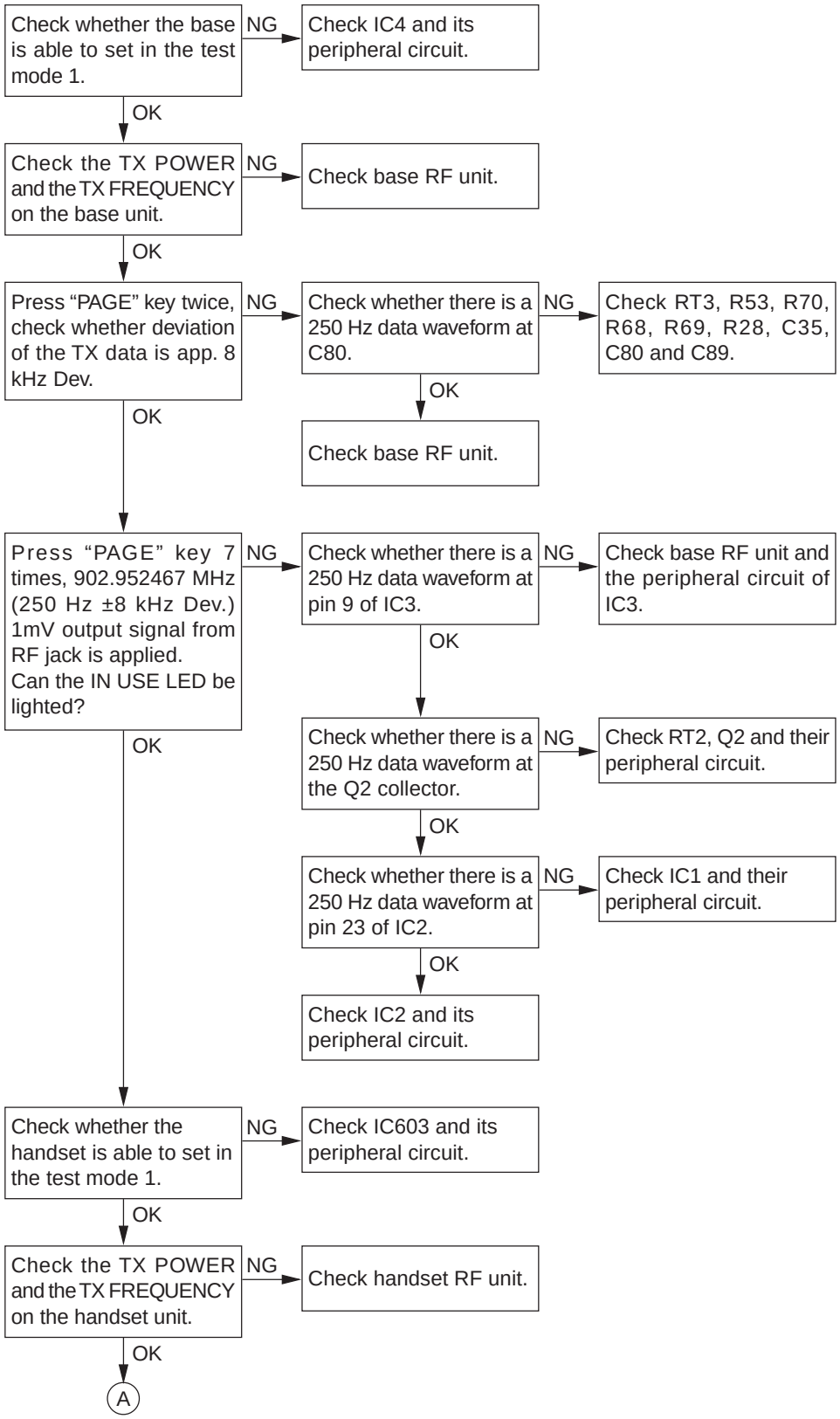
To delete the Caller ID memory in the EEPROM, proceed with the following process:

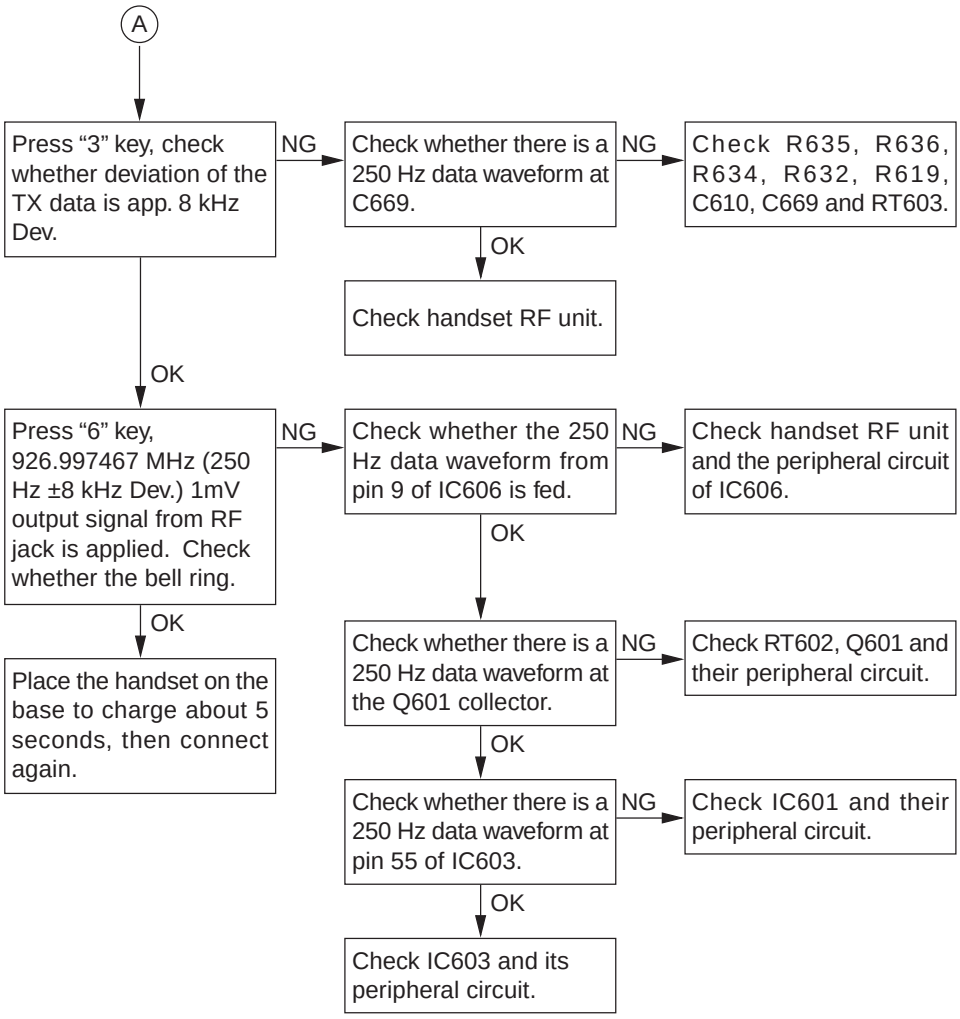
1) Connect the battery with pressing (*) and (#) buttons, and keep pressing the buttons continuously for approximate 2 seconds.
2) Release buttons when entering TEST mode with beep.
3) Press (CID) button.
4) A confirmation beep will sound after about 8 seconds, then the data for caller ID is deleted.
   (Note: Do not disconnect the battery until you hear the confirmation beep, otherwise the data may not be completely deleted.)

2. The bell does not ring & page does not ring.

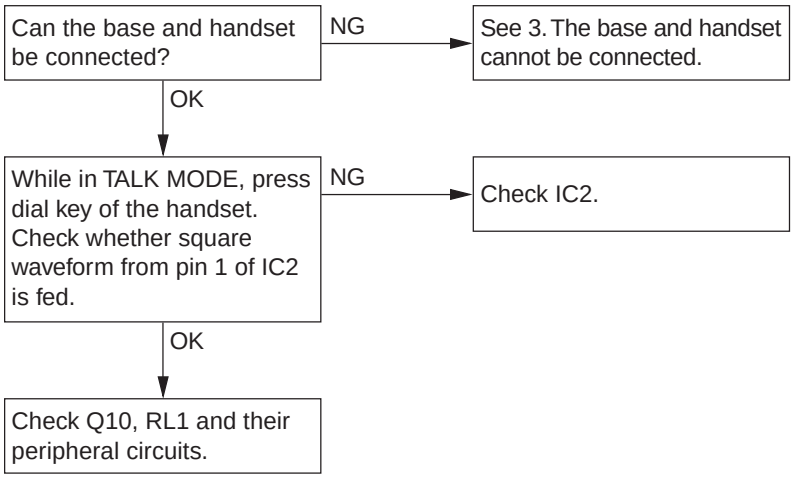

Can the base and handset be connected?
NG
See 3. The base and handset cannot be connected.
OK
Press handset DIAL key while in TALK MODE. Can key touch sound be heard from the ringer?
NG
When the key of the handset is pressed, can the pulse output at pin 58 of IC603 be seen?
NG
Check IC603.
OK
OK
At the Q616 collector, can the pulse wave be seen?
NG
Check R688, R673, R689, R672, R629, Q616 and Q617.
OK
Check RINGER Y601.
When the PAGE SW of the base is pressed, does pin32 of IC2 change from high to low?
NG
Check R55, R77 and S1.
OK
Check IC4 and its peripheral circuit.

3. The base and handset cannot be connected.

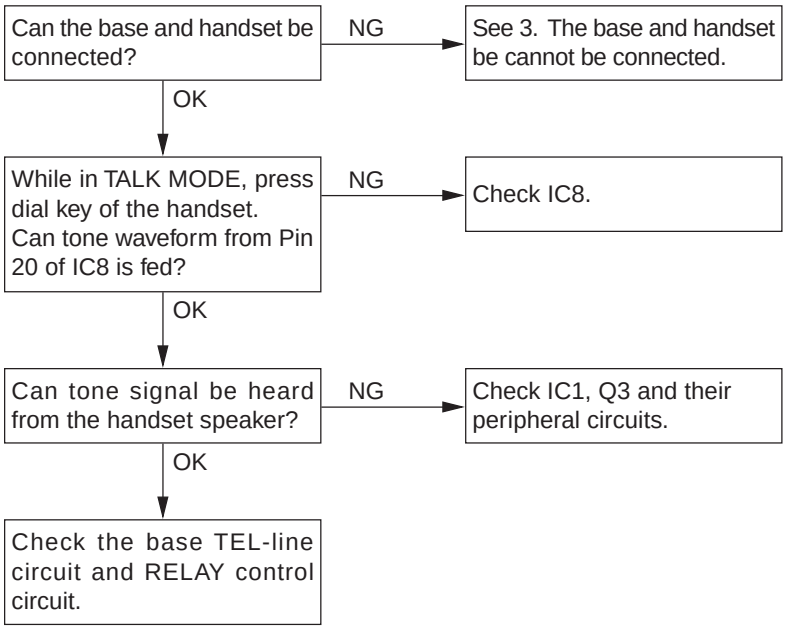

Check whether the base is able to set in the test mode 1.
NG
Check IC4 and its peripheral circuit.
OK
Check the TX POWER and the TX FREQUENCY on the base unit.
NG
Check base RF unit.
OK
Press “PAGE” key twice, check whether deviation of the TX data is app. 8 kHz Dev.
NG
Check whether there is a 250 Hz data waveform at C80.
NG
Check RT3, R53, R70, R68, R69, R28, C35, C80 and C89.
OK
Check base RF unit.
OK
Press “PAGE” key 7 times, 902.952467 MHz (250 Hz ±8 kHz Dev.) 1mV output signal from RF jack is applied.
Can the IN USE LED be lighted?
NG
Check whether there is a 250 Hz data waveform at pin 9 of IC3.
NG
Check base RF unit and the peripheral circuit of IC3.
OK
Check whether there is a 250 Hz data waveform at the Q2 collector.
NG
Check RT2, Q2 and their peripheral circuit.
OK
Check whether there is a 250 Hz data waveform at pin 23 of IC2.
NG
Check IC1 and their peripheral circuit.
OK
Check IC2 and its peripheral circuit.
OK
Check whether the handset is able to set in the test mode 1.
NG
Check IC603 and its peripheral circuit.
OK
Check the TX POWER and the TX FREQUENCY on the handset unit.
NG
Check handset RF unit.
OK
A


A
Press “3” key, check whether deviation of the TX data is app. 8 kHz Dev.
NG
Check whether there is a 250 Hz data waveform at C669.
NG
Check R635, R636, R634, R632, R619, C610, C669 and RT603.
OK
Check handset RF unit.
OK
Press “6” key, 926.997467 MHz (250 Hz ±8 kHz Dev.) 1mV output signal from RF jack is applied. Check whether the bell ring.
NG
Check whether the 250 Hz data waveform from pin 9 of IC606 is fed.
NG
Check handset RF unit and the peripheral circuit of IC606.
OK
OK
Place the handset on the base to charge about 5 seconds, then connect again.
Check whether there is a 250 Hz data waveform at the Q601 collector.
NG
Check RT602, Q601 and their peripheral circuit.
OK
Check whether there is a 250 Hz data waveform at pin 55 of IC603.
NG
Check IC601 and their peripheral circuit.
OK
Check IC603 and its peripheral circuit.

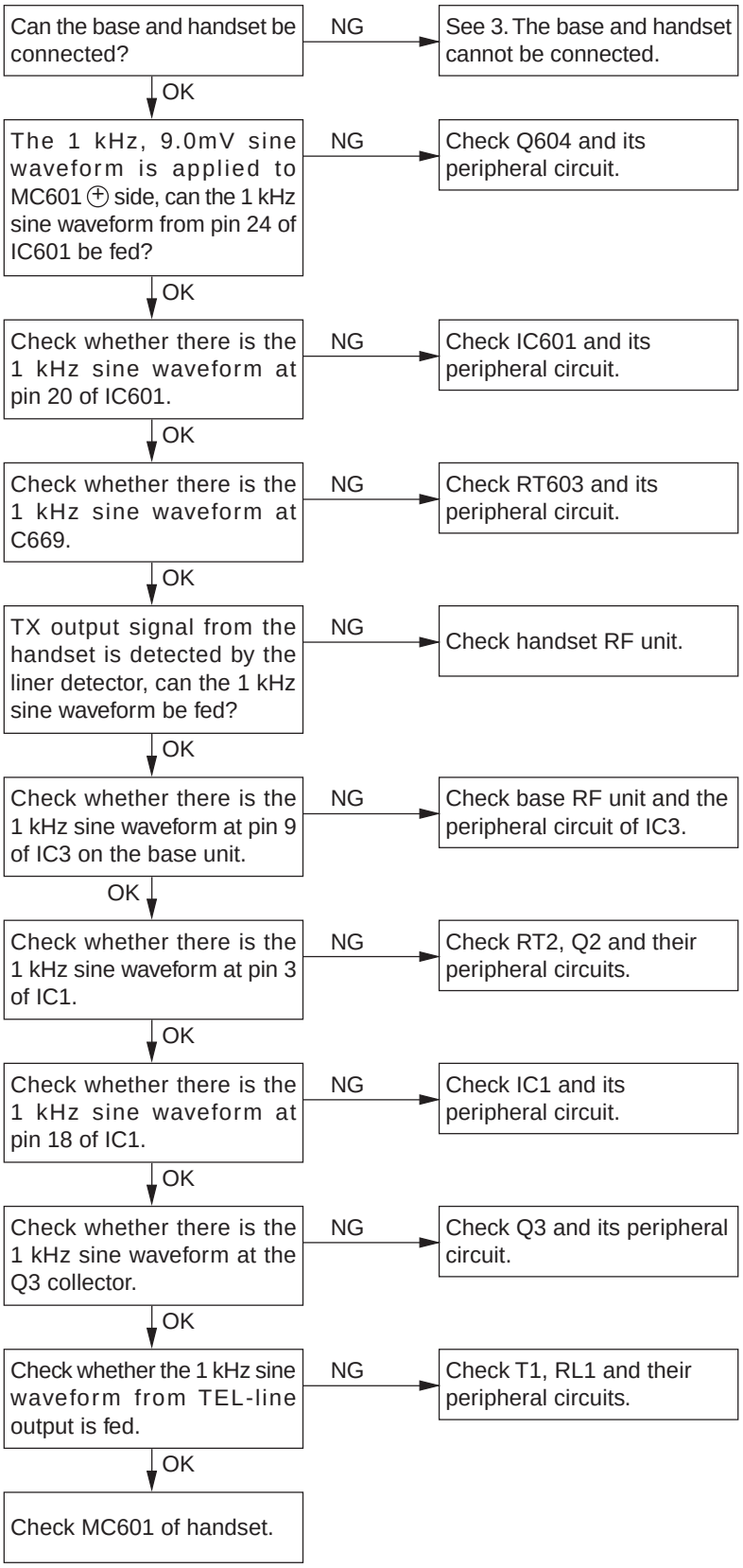
4. Cannot make a phone call (pulse).


Can the base and handset be connected?
NG
See 3. The base and handset cannot be connected.
OK
While in TALK MODE, press dial key of the handset. Check whether square waveform from pin 1 of IC2 is fed.
NG
Check IC2.
OK
Check Q10, RL1 and their peripheral circuits.

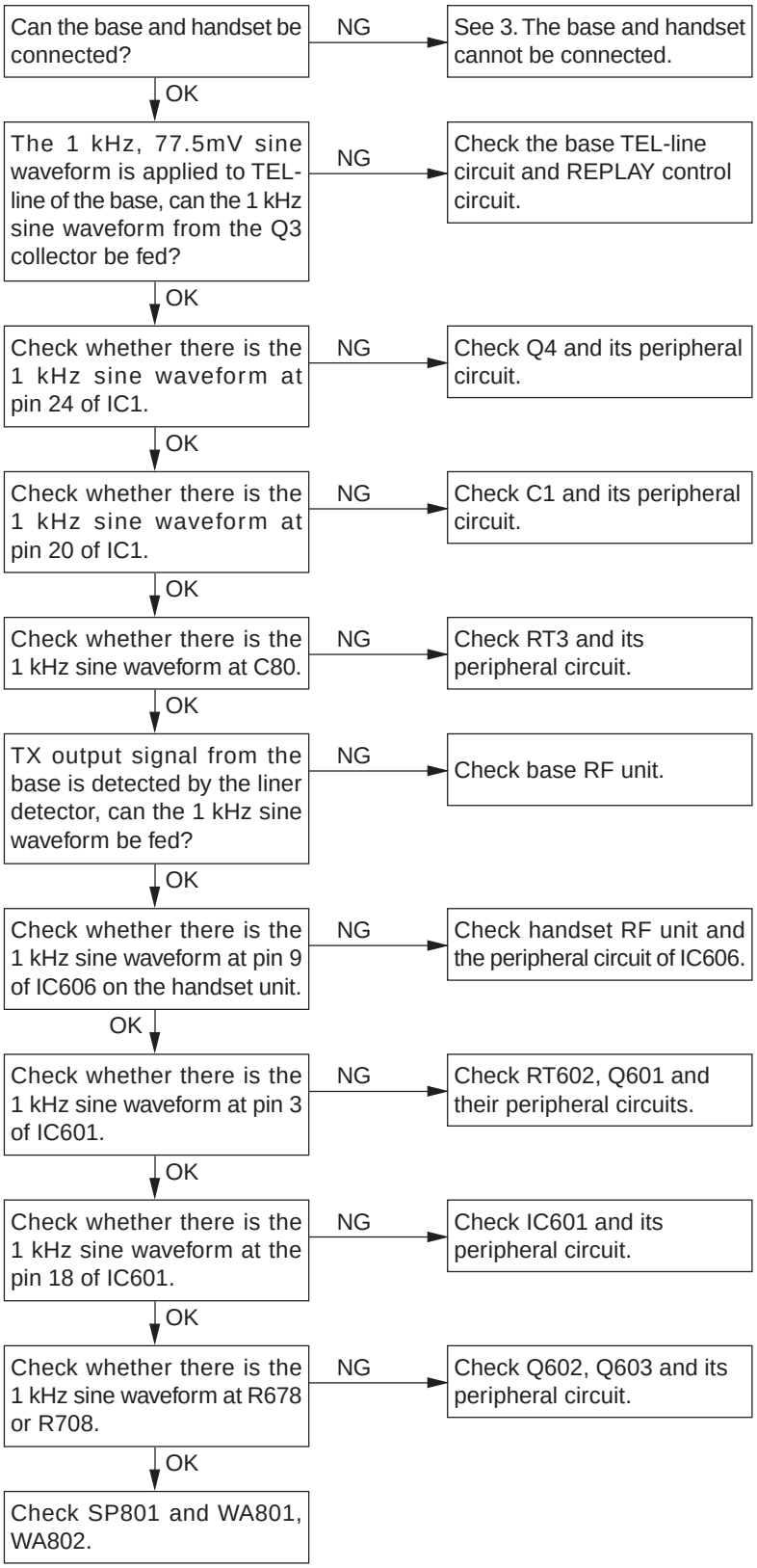
5. Cannot make a phone call (tone).


Can the base and handset be connected?
NG
See 3. The base and handset be cannot be connected.
OK
While in TALK MODE, press dial key of the handset. Can tone waveform from Pin 20 of IC8 is fed?
NG
Check IC8.
OK
Can tone signal be heard from the handset speaker?
NG
Check IC1, Q3 and their peripheral circuits.
OK
Check the base TEL-line circuit and RELAY control circuit.

6. Voice cannot be transmitted to other party (outgoing call).


Can the base and handset be connected?
NG
See 3. The base and handset cannot be connected.
OK
The 1 kHz, 9.0mV sine waveform is applied to MC601 ⊕ side, can the 1 kHz sine waveform from pin 24 of IC601 be fed?
NG
Check Q604 and its peripheral circuit.
OK
Check whether there is the 1 kHz sine waveform at pin 20 of IC601.
NG
Check IC601 and its peripheral circuit.
OK
Check whether there is the 1 kHz sine waveform at C669.
NG
Check RT603 and its peripheral circuit.
OK
TX output signal from the handset is detected by the liner detector, can the 1 kHz sine waveform be fed?
NG
Check handset RF unit.
OK
Check whether there is the 1 kHz sine waveform at pin 9 of IC3 on the base unit.
NG
Check base RF unit and the peripheral circuit of IC3.
OK
Check whether there is the 1 kHz sine waveform at pin 3 of IC1.
NG
Check RT2, Q2 and their peripheral circuits.
OK
Check whether there is the 1 kHz sine waveform at pin 18 of IC1.
NG
Check IC1 and its peripheral circuit.
OK
Check whether there is the 1 kHz sine waveform at the Q3 collector.
NG
Check Q3 and its peripheral circuit.
OK
Check whether the 1 kHz sine waveform from TEL-line output is fed.
NG
Check T1, RL1 and their peripheral circuits.
OK
Check MC601 of handset.

7. The voice of the caller cannot be heard (incoming call).


Can the base and handset be connected?
NG
See 3. The base and handset cannot be connected.
OK
The 1 kHz, 77.5mV sine waveform is applied to TEL-line of the base, can the 1 kHz sine waveform from the Q3 collector be fed?
NG
Check the base TEL-line circuit and REPLAY control circuit.
OK
Check whether there is the 1 kHz sine waveform at pin 24 of IC1.
NG
Check Q4 and its peripheral circuit.
OK
Check whether there is the 1 kHz sine waveform at pin 20 of IC1.
NG
Check C1 and its peripheral circuit.
OK
Check whether there is the 1 kHz sine waveform at C80.
NG
Check RT3 and its peripheral circuit.
OK
TX output signal from the base is detected by the liner detector, can the 1 kHz sine waveform be fed?
NG
Check base RF unit.
OK
Check whether there is the 1 kHz sine waveform at pin 9 of IC606 on the handset unit.
NG
Check handset RF unit and the peripheral circuit of IC606.
OK
Check whether there is the 1 kHz sine waveform at pin 3 of IC601.
NG
Check RT602, Q601 and their peripheral circuits.
OK
Check whether there is the 1 kHz sine waveform at the pin 18 of IC601.
NG
Check IC601 and its peripheral circuit.
OK
Check whether there is the 1 kHz sine waveform at R678 or R708.
NG
Check Q602, Q603 and its peripheral circuit.
OK
Check SP801 and WA801, WA802.

IC AND TRANSISTOR VOLTAGE CHART

Base Unit

Unit[V]

Ref. No.	PIN	STBY	TALK	NOTE
IC1	1	1.7V DC	1.7V DC	
	2	1.7V DC	1.7V DC	
	3	1.7V DC	1.7V DC	
	4	0.7V DC	1.7V DC	
	5	1.7 VDC	1.7V DC	
	6	1.7V DC	1.7V DC	
	7	1.7V DC	1.7V DC	
	8	3.2V	3.2V	
	9	0V	0V	GND
	10	0-3.2V	0-3.2V	PULSE
	11	0V	0V	GND
	12	1.7V DC	1.7V DC	
	13	3.2V DC	3.2V DC	Vcc
	14	1.7V DC	1.7V DC	
	15	1.7V DC	1.7V DC	
	16	0,u DC	3.2V DC	RXMUTE
	17	0V DC	3.2V DC	TXMUTE
	18	1.7V DC	1.7V DC	
	19	1.7V DC	1.7V DC	
	20	1.7V DC	1.7V DC	
	21	0.6V DC	0.6V DC	
	22	1.7V DC	1.7V DC	
	23	1.7V DC	1.7V DC	
	24	1.7V DC	1.7V DC	
IC2	1	0V	3.2V DC	TALK
	2	0V	3.2V DC	TONE
	3	0V	3.2V DC	
	4	0V	0V	
	5	0V	0V	
	6	0V	0V	
	7	0V	3.2V DC	TXMUTE
	8	0V	3.2V DC	RXMUTE
	9	0V	0V	
	10	3.2V DC	3.2V DC	VDD
	11	2.7V DC	0.1V DC	
	12	1.0V DC	1.0V DC	
	13	0V	0V	
	14	0V	0V	
	15	3.2V DC	0.1V DC	LED1
	16	3.2V DC	0.1V DC	LED2
	17	0V	0V	
	18	0V	0V	
	19	0V	3.1V DC	
	20	3.2V DC	3.2V DC	

Unit[V]

Ref. No.	PIN	STBY	TALK	NOTE
IC2	21	2.6V DC	2.6V DC	
	22	0-3.2V DC	0V	SQ
	23	3.2V DC	3.2V DC	
	24	3.2V DC	3.2V DC	VDD
	25	0V	0V	
	26	0V	0V	
	27	0V	0V	
	28	0V	0V	
	29	0V	0V	
	30	0V	0V	
	31	3.2V DC	3.2V DC	
	32	3.2V DC	3.2V DC	
	33	0V	0V	GND
	34	3.2V DC	3.2V DC	
	35	3.2V DC	3.2V DC	
	36	3.2V DC	3.2V DC	
	37	3.2V DC	3.2V DC	
	38	0V	0V	GND
	39	0V	0V	GND
	40	0.3-3.0V	0.3-3.0V	SINE WAVE
	41	0.4-2.4V	0.4-2.4V	SINE WAVE
	42	0V	0V	GND
	43	0V	0V	
	44	0V	0V	
	45	0V	0V	
	46	0V	0V	
	47	2.4V DC	2.4V DC	
	48	3.1-3.2V	3.1-3.2V	PULSE
	49	0V	0V	
	50	2.7V DC	2.7V DC	
	51	0V	0V	
	52	0V	0V	
	53	0V	0V	
	54	0V	0V	
	55	0V	0V	
	56	0V	0V	
	57	0V	0V	
	58	0V	0V	
	59	0V	0V	
	60	0V	0V	
	61	0V	0V	
	62	0V	0V	
	63	0V	0V	
	64	0V	0V	

Unit[V]

Ref. No.	PIN	STBY	TALK	NOTE
IC3	1	2.6-3.8V	2.6-3.8V	SINE WAVE
	2	3.4-4.2V	3.4-4.2V	SINE WAVE
	3	2.6V DC	2.4-3.0V	PULSE
	4	3.2V DC	3.2V DC	Vcc
	5	2.8V DC	2.5-3.0V	SINE WAVE
	6	2.8V DC	2.8V DC	
	7	2.8V DC	2.8V DC	
	8	3.2,u DC	3.2,u DC	
	9	0V	0V	
	10	0.6V DC	0.6V DC	
	11		0.7V DC	
	12	0.6V DC	0.8V DC	
	13	3.2V DC	0V DC	
	14	0,u DC	0V DC	
	15	0V DC	0V DC	
	16	3.2V DC	300mVp-p	SINE WAVE
IC4	1	0V	0V	
	2	0V	0V	
	3	0V	0V	
	4	3.2V DC	3.2V DC	
IC5	1	2.5V DC	2.5V DC	
	2	2.5V DC	2.5V DC	
	3	2.5V DC	2.5V DC	
	4	2.5V DC	2.5V DC	
	5	0V	0V	GND
	6	1.8-2.5V	1.8-2.5V	SINE WAVE
	7	0.5-4.5V	0.5-4.5V	SINE WAVE
	8	0V	0V	GND
	9	5.0V DC	5.0V DC	
	10	5.0V DC	5.0V DC	
	11	5.0V DC	5.0V DC	
	12	0V	0V	
	13	0V	0V	
	14	5.0V DC	5.0V DC	
	15	5.0V DC	5.0V DC	
	16	5.0V DC	5.0V DC	
	17	0V	0V	
	18	2.5V DC	2.5V DC	
	19	2.5V DC	2.5V DC	
	20	2.5V DC	2.5V DC	
IC6	1	3.2V DC	3.2V DC	
	2	3.2V DC	3.2V DC	
	3	0V	0V	

Unit[V]

Ref. No.	PIN	STBY	TALK	NOTE
IC8	1	3.2V DC	3.2V DC	
	2	1.2V DC	1.2V DC	
	3	0V	0V	
	4	2.8V DC	2.8V DC	
	5	2.8V DC	2.8V DC	
	6	0V	0V	
	7	0V	0V	GND
	8	0V	0V	
	9	3.0Vpp	3.0Vpp	SINE WAVE
	10	0-3.2V	0-3.2V	
	11	0V	0V	
	12	3.2V DC	3.2V DC	
	13	0V	0V	
	14	0V	0V	
	15	0V	0V	
	16	0V	0V	
	17	2.8V DC	2.8V DC	
	18	0V	0V	
	19	0V	0V	
	20	1.2V DC	1.2V DC	
Q1	E	0V	0V	GND
	C	2.1V DC	580mVp-p	SINE WAVE
	B	0.8V DC	0.8V DC	
Q2	E	0.3 VDC	0.3 VDC	
	C	1.7V DC	1.7V DC	
	B	0.9V DC	0.9V DC	
Q3	E	0.7V DC	0.7V DC	
	C	4.3V DC	4.3V DC	
	B	1.3V DC	1.3V DC	
Q4	E	1.1V DC	1.1V DC	
	C	2.1V DC	2.1V DC	
	B	1.7V DC	1.7V DC	
Q6	E	0V	0V	GND
	C	3.2V DC	3.2V DC	
	B	0V	0V	
Q7	E	5.2V DC	5.2V DC	
	C	9V DC	9V DC	
	B	6V DC	6V DC	
Q8	E	0V	0V	
	C	0V	0V	
	B	0.9V DC	0.9V DC	
Q9	E	0V	0V	GND
	C	3.2V DC	3.2V DC	
	B	0V	0V	

Unit[V]

Ref. No.	PIN	STBY	TALK	NOTE
Q10	E	0V	0V	GND
	C	9V DC	0V	
	B	0V	0.8V	
Q11	E	3.2V DC	3.2V DC	
	C	5.2V DC	5.2V DC	
	B	3.8V DC	3.8V DC	
Q16	E	2.6V DC	2.6V DC	
	C	0V	2.6V DC	
	B	2.5V DC	2.2V DC	

Handset

Unit[V]

Ref. No.	PIN	STBY	TALK	NOTE
IC601	1	0-2.8V	1.9V DC	
	2	0-2.8V	1.9V DC	
	3	-0.2-2.6V	1.6V DC	
	4	0.4-0.8V	0.6V DC	
	5	0.4-1.5V	1.5V DC	
	6	0.4-1.5V	1.5V DC	
	7	0-2.0V	1.9V DC	
	8	0-3.0V	0V DC	
	9	0V DC	0V DC	GND
	10	0-3.0V	0-3.0V	PULSE
	11	0V DC	0V DC	GND
	12	0-1.5V	1.5V DC	
	13	0-3.0V	3.0V DC	
	14	0-1.5V	1.5V DC	
	15	0-1.5V	1.5V DC	
	16	0V DC	3.0V DC	RXMUTE
	17	0V DC	3.0V DC	TXMUTE
	18	0-1.5V	1.5V DC	
	19	0-15.V	1.5V DC	
	20	0-1.5V	1.5V DC	
	21	1.0-4.0V	0.7V DC	
	22	1.6V DC	1.5V DC	
	23	1.6V DC	1.5V DC	
	24	1.6V DC	1.5V DC	
IC602	1	0-2.9V	2.9V DC	
	2	0V DC	0V DC	GND
	3	0-1.2V	1.2V DC	
	4	0-3.0V	3.0V DC	
	5	3.8V DC	3.8V DC	
IC603	1	3.0V DC	3.0V DC	
	2	0V DC	0V DC	
	3	0V DC	0V DC	
	4	0V DC	0V DC	
	5	0V DC	0V DC	
	6	0V DC	0V DC	
	7	0V DC	0V DC	
	8	3.0V DC	0V DC	CONV
	9	0V DC	0V DC	
	10	0-3.0V	0/3V	SP-VOL
	11	3.0V DC	3.0V DC	VCC
	12	0V DC	0V DC	
	13	0V DC	0V DC	GND
	14	3.2V DC	3.2V DC	BATSAVE
	15	3.2V DC	3.2V DC	

Unit[V]

Ref. No.	PIN	STBY	TALK	NOTE
IC603	16	0V DC	0V DC	
	17	1.4-3.0V	3.0V DC	W/U
	18	0V DC	0V DC	GND
	19	3.0V DC	3.0V DC	RST
	20	0V DC	0V DC	GND
	21	0V DC	0V DC	GND
	22	0.3-1.9V	0.3-1.9V	SINE WAVE
	23	0-3.0V	0-3.0V	SINE WAVE
	24	0V DC	0V DC	GND
	25	0V DC	0V DC	
	26	0V DC	2.9V DC	LCD-
	27	0V DC	2.9/0V	SP-VOL2
	28	0V DC	2.9V DC	MIC-ON
	29	0V DC	2.9V DC	LCDRS
	30	0V DC	2.9V DC	RESET
	31	0V DC	2.9V DC	LCDV
	32	0V DC	0V DC	
	33	2.9V DC	2.9V DC	
	34	0V DC	0V DC	
	35	2.9V DC	2.9V DC	
	36	0V DC	0V DC	
	37	0V DC	0V DC	
	38	3.2V DC	3.2V DC	BATLOW
	39	0V DC	0V DC	
	40	0V DC	0V DC	
	41	0-2.9V	0V DC	SQ-IN
	42	0-2.9V	2.9V DC	SC
	43	0V DC	0/2.9V	RINGVOL
	44	0-2.5V	0V DC	TXB
	45	0V DC	0V DC	
	46	0-2.9V	0V DC	
	47	0-2.9V	0V DC	
	48	0-2.9V	2.9V DC	
	49	0V DC	0V DC	GND
	50	0V DC	2.9V DC	TXMUTE
	51	2.9V DC	2.9V DC	LCDSCL
	52	0V DC	0-2.9V	PULSE
	53	0V DC	0V DC	
	54	0V DC	2.9V DC	
	55	0-2.9V	0-2.9V	PULSE
	56	3.0V DC	3.0V DC	
	57	0V DC	0-2.9V	PULSE
	58	0V DC	0V DC	
	59	0V DC	0V DC	

Unit[V]

Ref. No.	PIN	STBY	TALK	NOTE
IC603	60	0V DC	0V DC	
	61	3.0V DC	3.0V DC	
	62	3.0V DC	3.0V DC	
	63	3.0V DC	3.0V DC	
	64	3.0V DC	3.0V DC	
IC604	1	3.2V DC	3.2V DC	
	2	3.8V DC	3.8V DC	
	3	0V DC	0V DC	
IC605	1	3.2V DC	3.2V DC	
	2	3.8V DC	3.8V DC	
	3	0V DC	0V DC	
	4	3.8V DC	3.8V DC	
	5	3.2V DC	3.2V DC	
IC606	1	0-3.7V	2.3-3.7V	SINE WAVE
	2	0-2.9V	2.2-2.9V	SINE WAVE
	3	0-2.5V	2.2-2.8V	
	4	3.0V DC	3.0V DC	
	5	0-2.5V	2.3-2.8V	
	6	0-2.5V	2.5V DC	
	7	0-2.5V	2.5V DC	
	8	0-3.0V	2.8V DC	
	9	0-1.5V	0.5-1.0V	SINE WAVE
	10	0-0.7V	0.6V DC	
	11	0-0.7V	0.6V DC	
	12	0-0.7V	0.8V DC	
	13	0V DC	0V DC	
	14	0V DC	0V DC	
	15	0V DC	0V DC	
	16	0-3.0V	2.6-3.2V	SINE WAVE
IC608	1	0V DC	0V DC	
	2	0V DC	0V DC	
	3	0V DC	0V DC	
	4	0V DC	0V DC	
	5	0-3.0V	3.0V DC	
	6	0V DC	0V DC	
	7	0V DC	0V DC	
	8	0-3.0V	3.0V DC	
IC609	1	0V DC	0V DC	
	2	3.8V DC	3.8V DC	
	3	3.2V DC	3.2V DC	
Q600	E	0V DC	0V DC	
	C	0V DC	0V DC	
	B	0V DC	0.7V DC	

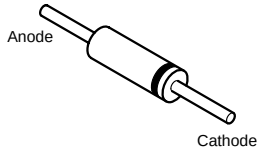
Unit[V]

Ref. No.	PIN	STBY	TALK	NOTE
Q601	E	0-0.4V	1.0V DC	
	C	0-2.0V	1.9V DC	
	B	0-1.0V	0.3V DC	
Q602	E	0V DC	0.7V DC	
	C	0-0.2V	1.5V DC	
	B	0V DC	1.3V DC	
Q603	E	0V DC	0.6V DC	
	C	0V DC	1.6V DC	
	B	0V DC	1.3V DC	
Q604	E	0V DC	0.7V DC	
	C	0V DC	1.7V DC	
	B	0V DC	1.2V DC	
Q609	E	0-0.3V	0V DC	
	C	0V DC	3V DC	
	B	0-3.0V	2.3V DC	
Q610	E	0V DC	3.2V DC	
	C	3.2V DC	0V DC	
	B	0V DC	0V DC	
Q611	E	0V DC	0V DC	
	C	3.2V DC	2.9V DC	
	B	0V DC	0V DC	
Q612	E	0V DC	0V DC	
	C	0-2.2V	1.5-2.5V	SINE WAVE
	B	0-0.7V	0.7 DC	
Q613	E	0-3.0V	3.0V DC	
	C	0.3V	3.0V DC	
	B	0-2.5V	2.2V DC	
Q614	E	0V DC	0V DC	
	C	2.4V DC	2.4V DC	
	B	0V DC	0V DC	
Q616	E	0V DC	0V DC	
	C	3.8V DC	3.8V DC	
	B	0V DC	0V DC	
Q617	E	0V DC	0V DC	
	C	0V DC	0V DC	
	B	0V DC	0V DC	

SEMICONDUCTOR LEAD IDENTIFICATION

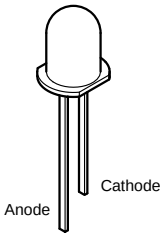
Base Unit

D1/D4/D5/D9/D10
/D12/D15/D16/D17 : 1N4148
D3 : HZ33-2
D11 : HZ6B2
D13 : HZ4B1

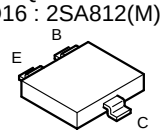


D2 : HZK7C

D6 : MVR3338ST-922

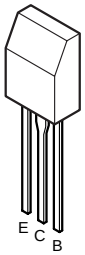


Q1 : 2SC2714
Q2/Q4/Q6/Q9 : 2SC1623
Q3/Q10 : 2SC2712
Q16 : 2SA812(M)

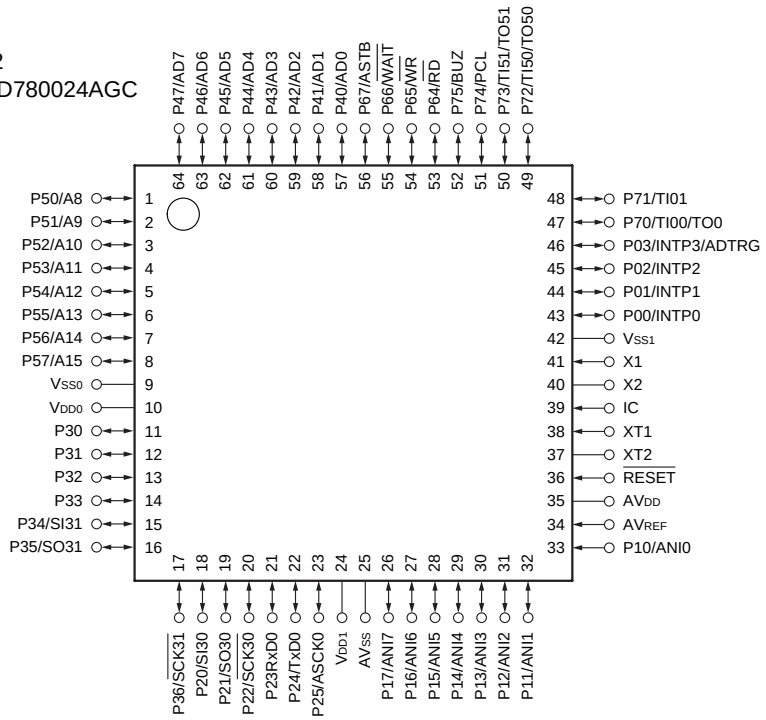


B : Base
E : Emitter
C : Collector

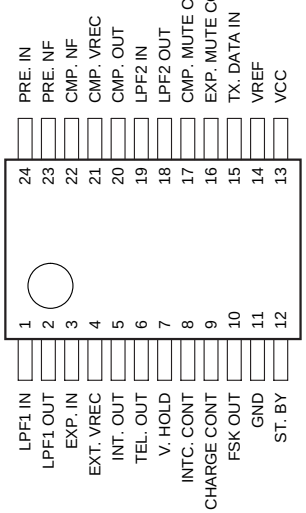
Q7 / Q8 / Q11 : 2SD471



IC2
µPD780024AGC

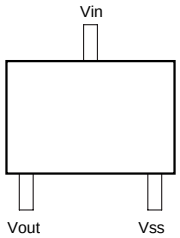


IC1
LA8634VU

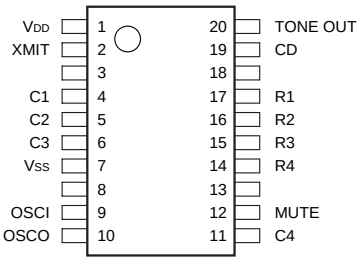


IC4
PS2501

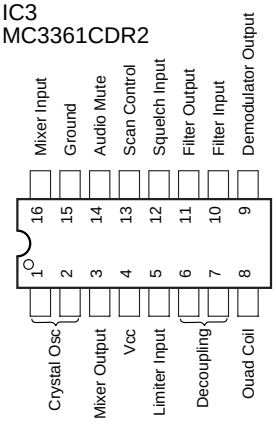
IC6
XC61CC2802PR
/XC61AC2802PR



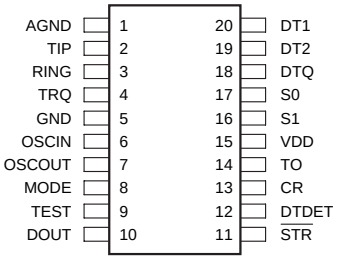
IC8
LC7366NM



IC3
MC3361CDR2



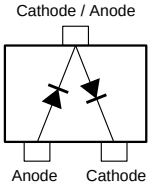
IC5
SM8224BM-E2



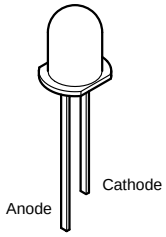
Handset

D602/D604
/D606/D607 : RLS4148
D608/D609 : HZK6C

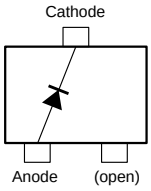
D610/D611 : 1SS226



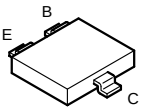
D612/D613/D614 :
EMPG4868K-8C0



D615 : RB420D

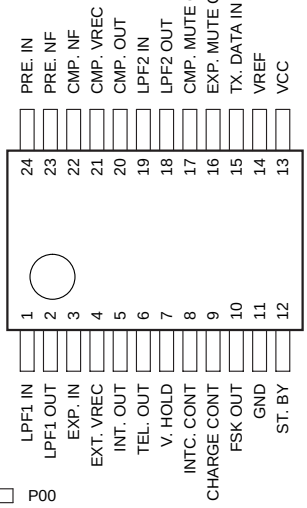


Q600/Q601/Q602/Q603/Q604
/Q610/Q611/Q616/Q617 : 2SC1623
Q609/Q613 : 2SA812(M)
Q612 : 2SC2714
Q614 : 2SC2712

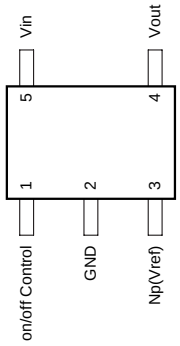


B : Base
E : Emitter
C : Collector

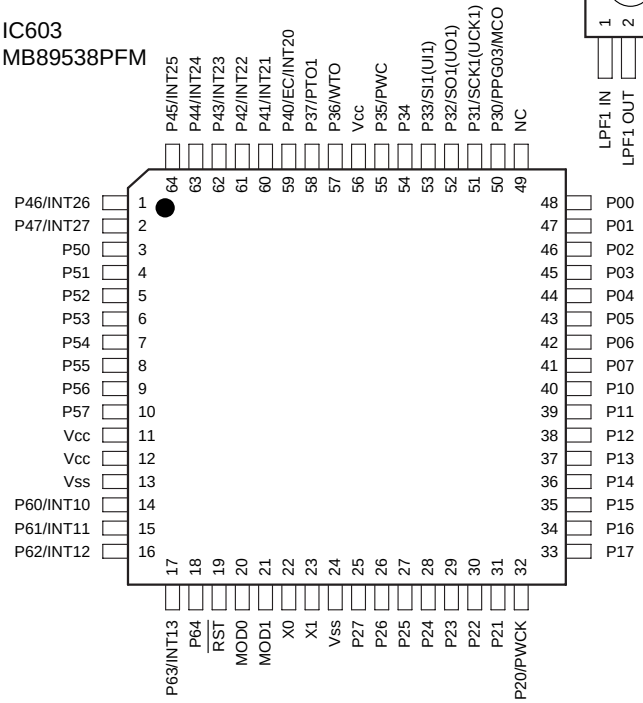
IC601
LA8634VU



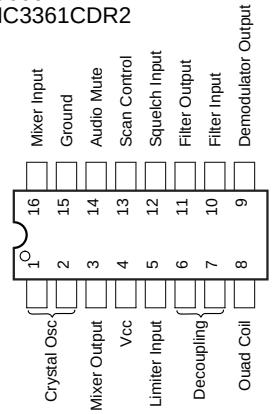
IC602
TK11130SCL



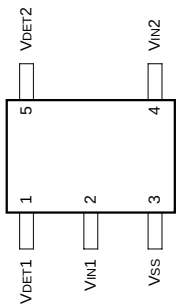
IC603
MB89538PFM



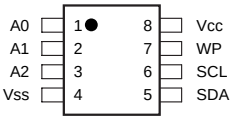
IC606
MC3361CDR2



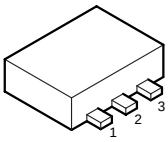
IC605
XC612N3328MR



IC608
24LC16BT/SN



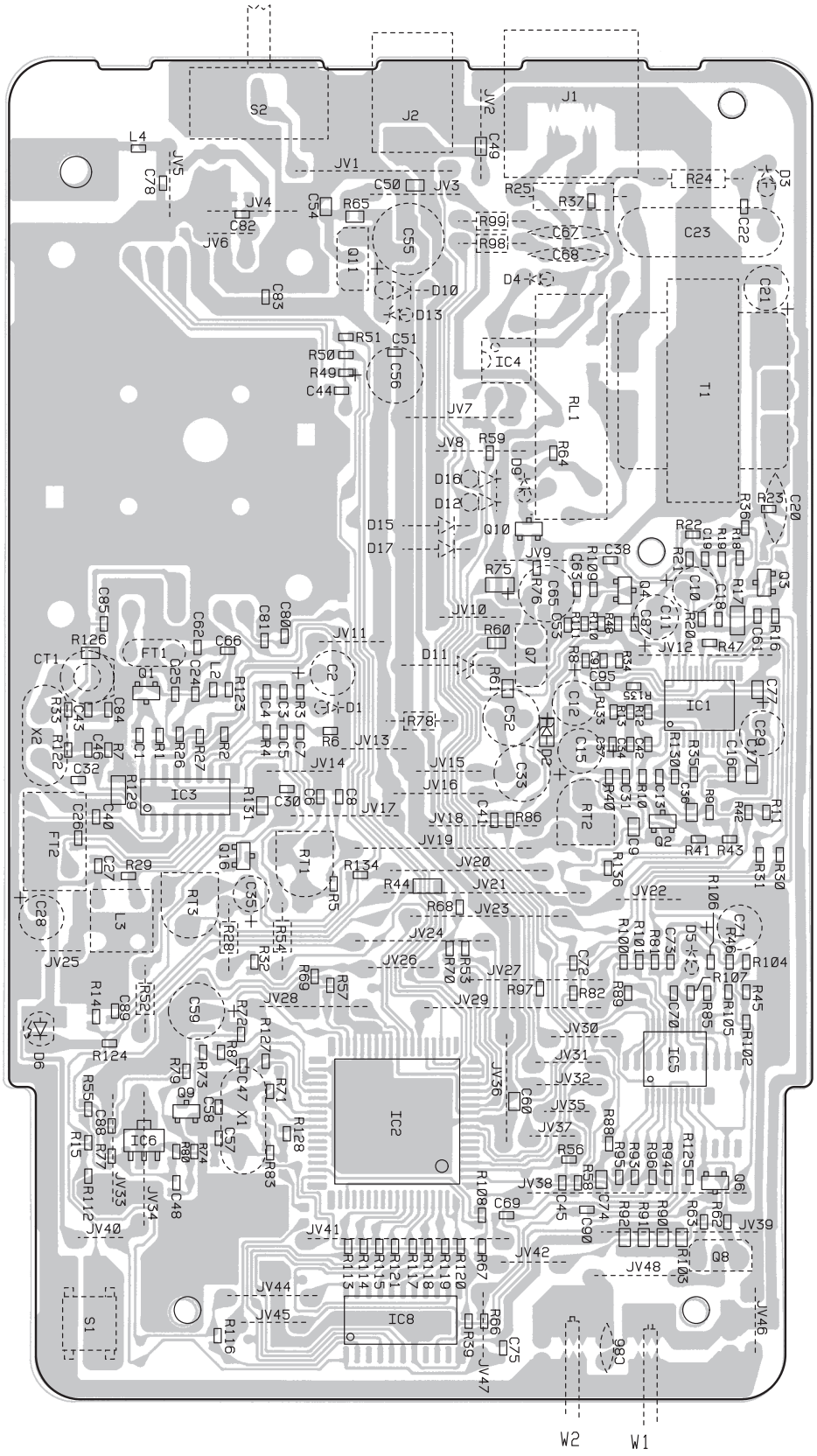
IC609 : RH5RE32AA



ELECTRICAL PARTS LOCATION

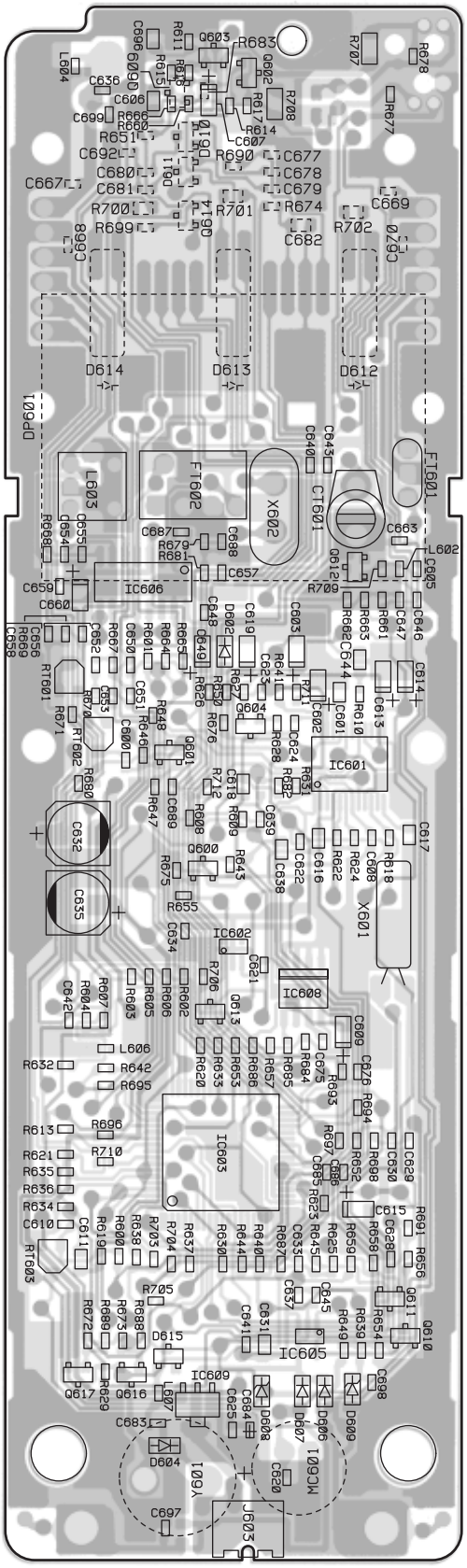
Base Unit

Main PCB



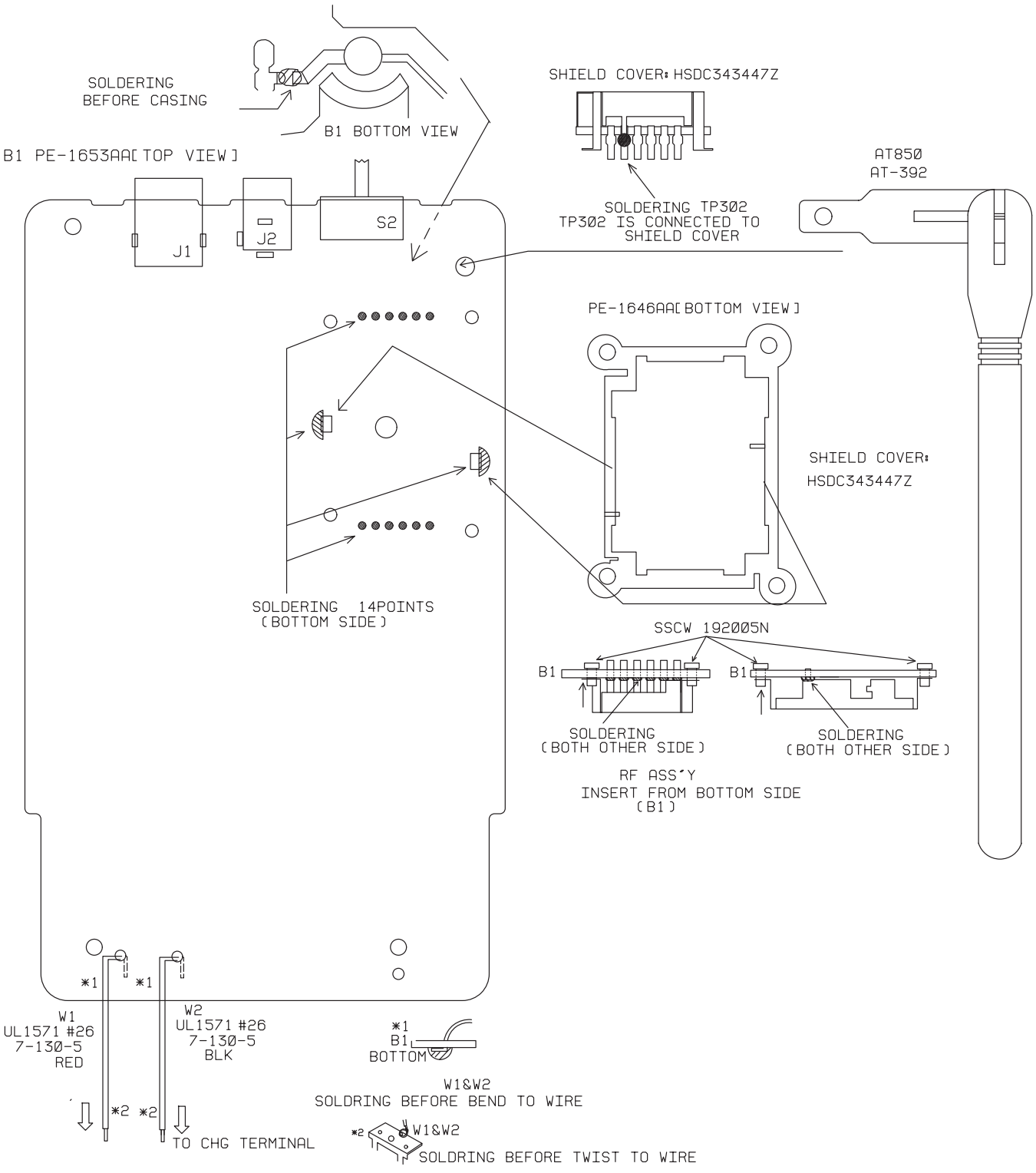
Handset

Main PCB

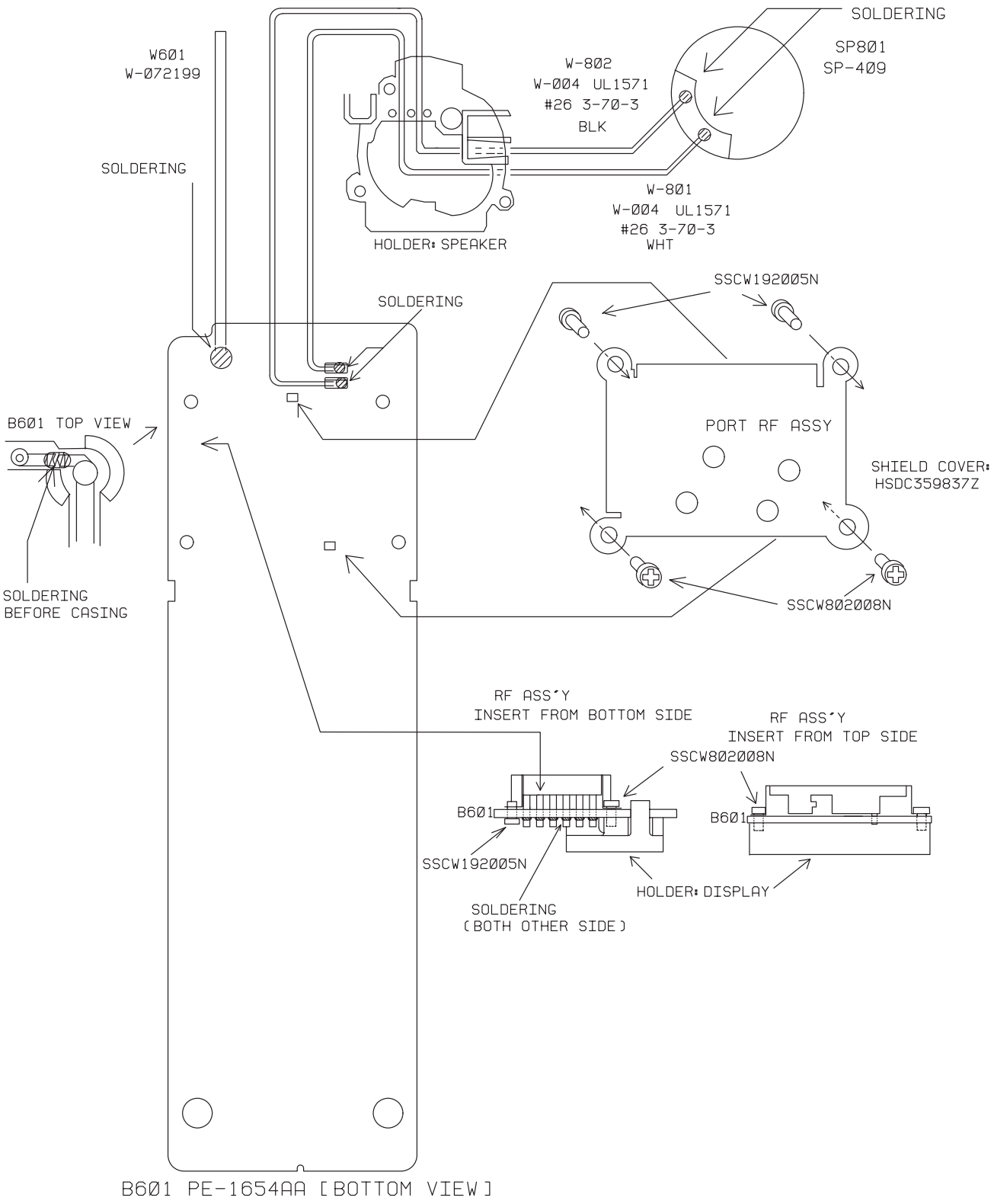


WIRING DIAGRAMS

Base Unit

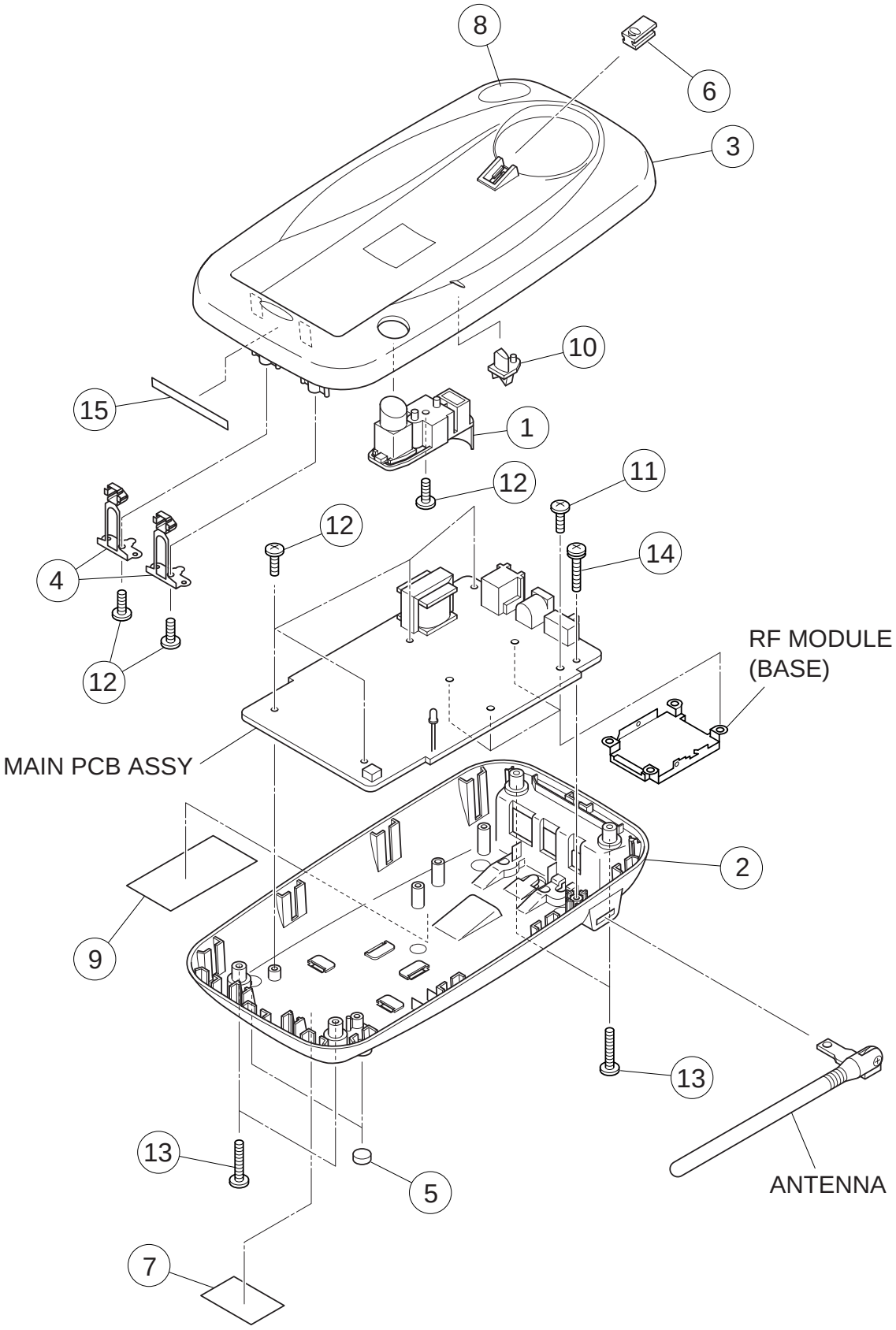


Handset


W601
W-072199
SOLDERING
W-802
W-004 UL1571
#26 3-70-3
BLK
SOLDERING
SP801
SP-409
W-801
W-004 UL1571
#26 3-70-3
WHT
HOLDER: SPEAKER
SSCW192005N
SOLDERING
B601 TOP VIEW
PORT RF ASSY
SHIELD COVER:
HSDC359837Z
SOLDERING
BEFORE CASING
SSCW802008N
RF ASS'Y
INSERT FROM BOTTOM SIDE
RF ASS'Y
INSERT FROM TOP SIDE
SSCW802008N
B601
B601
SSCW192005N
HOLDER: DISPLAY
SOLDERING
(BOTH OTHER SIDE)
B601 PE-1654AA [BOTTOM VIEW]

EXPLODED VIEWS AND MECHANICAL PARTS LIST

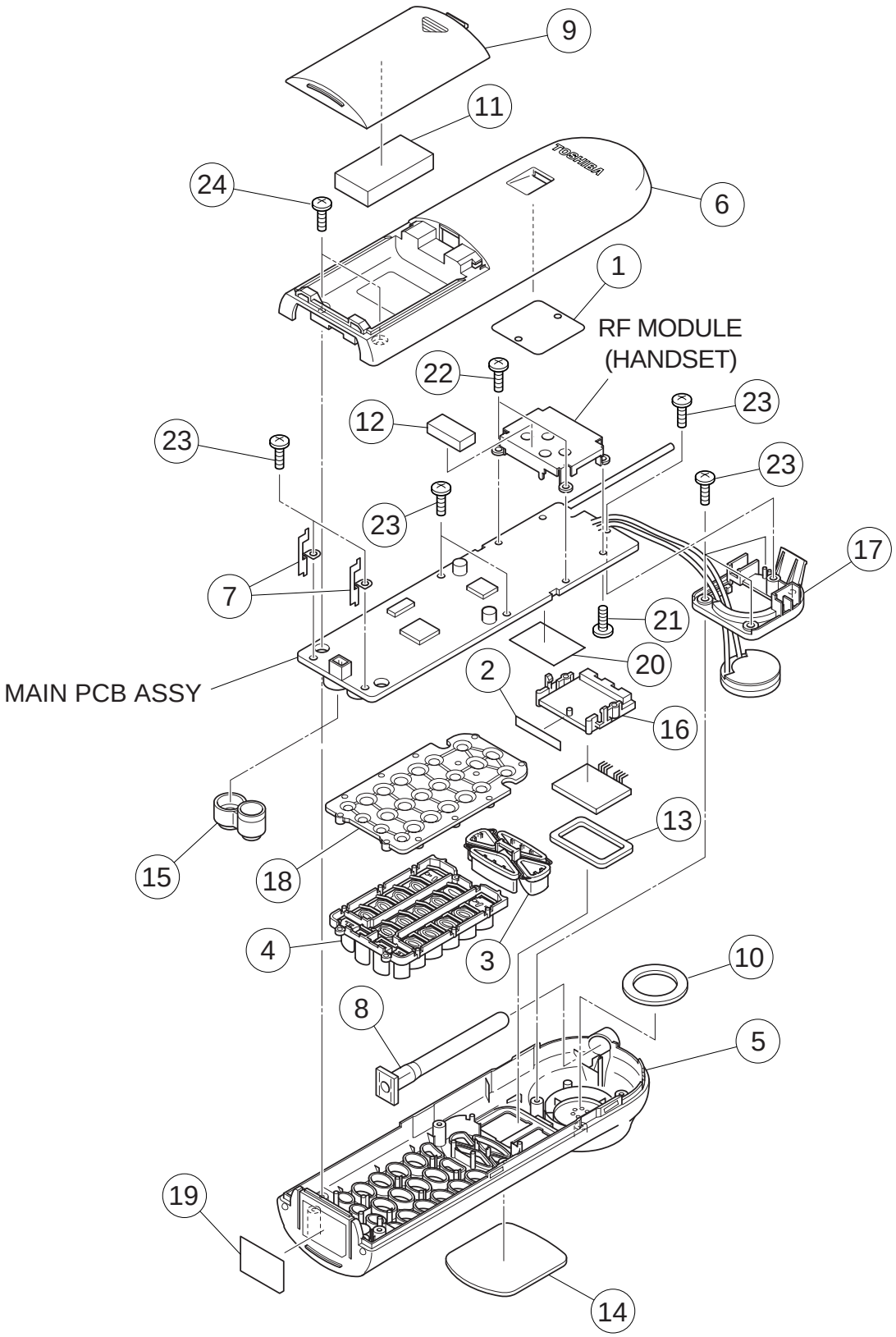
Base Unit



Base Unit

LOC. NO.	PART NO.	REF. NO.	DESCRIPTION		QTY
1	RC009453	GNBZ447684A	BUTTON, PUSH	ABS	1
2	RC009447	GCAS347682Z	CASE, BOTTOM	ABS	1
3	RC009525	GCAS347692Z	CASE, TOP	ABS	1
4	RC009325	HTML446079Z	CHARGE TERMINAL	C5191(PBP)	2
5	RC009327	LFUT441122Z	FOOT		2
6	RC009450	GCAS447683Z	HOOK	ABS	1
7	RC009531	PLBB448213A	LABEL, BARCODE		1
8	RC009534	PLBZ448214Z	LABEL, INDICATION		1
9	RC009535	PLBZ448215Z	LABEL, TA	POLYESTER	1
10	RC009313	GCAS446076Z	LED LENS	PMMA	1
11	RC008289	SSCW192005N	SCREW, BIND HD +	M2×5 NI	4
12	RC000941	SSCW802608N	SCREW, P TIGHT BIND HD +	D2.6×8 NI	7
13	RC004028	SSCW802616N	SCREW, P TIGHT BIND HD +	D2.6×16 NI	4
14	RC001752	SSCW283012N	SCREW, TAPPING BIND+& SP WASHER	D3×12 NI	1
15	RC009338	RUTC442550Z	WOOL COATED PAPER, WOOL TACK		1

Handset


9
11
24
6
1
RF MODULE
(HANDSET)
22
12
23
23
23
23
17
7
21
20
MAIN PCB ASSY
2
16
13
15
18
4
3
10
8
5
19
14

Handset

LOC. NO.	PART NO.	REF. NO.	DESCRIPTION		QTY
1	RC008346	RBLD442400Z	BLIND	PC	1
2	RC009366	RBLD447533Z	BLIND	PC	1
3	RC009530	GNBZ447699Z	BUTTON, FUNCTION	ABS	1
4	RC009528	GNBZ447696Z	BUTTON, FUNCTION (COMP)	ABS	1
5	RC009526	GCAS347694Z	CASE, FRONT	ABS	1
6	RC009449	GCAS347686A	CASE, REAR	ABS	1
7	RC009326	HTML446093Z	CHARGE TERMINAL	C2680(BSP)	2
8	RC008703	GCAS457897Z	COVER	ELASTOMER	1
9	RC009451	GCAS447687A	COVER, BATTERY	ABS	1
10	RC008348	RCUN442433Z	CUSHION	NEOPRENE	1
11	RC009337	RCUN447997Z	CUSHION	MOLTOPREN	1
12	RC005609	RCUN451805Z	CUSHION	NEOPRENE	1
13	RC008466	RCUN459780Z	CUSHION	NEOPRENE	1
14	RC009527	GCAS447695Z	DISPLAY WINDOW	PMMA	1
15	RC009328	LHDZ446090Z	DUAL HOLDER	EPDM	1
16	RC009356	GHDZ444918A	HOLDER, DISPLAY	PC	1
17	RC009316	GHDZ346084Z	HOLDER, SPEAKER	ABS	1
18	RC009329	LNBZ346091Z	KEY RUBBER	SI	1
19	RC009533	PLBS448216Z	LABEL, ID		1
20	RC008457	RETC459777Z	REFLECTION SHEET		1
21	RC008289	SSCW192005N	SCREW, BIND HD +	M2×5 NI	2
22	RC009367	SSCW802008N	SCREW, P TIGHT BIND HD +	D2×8 NI	2
23	RC000941	SSCW802608N	SCREW, P TIGHT BIND HD +	D2.6×8 NI	8
24	RC003327	SSCW802610N	SCREW, P TIGHT BIND HD +	D2.6×10 NI	2

PARTS LIST

PRODUCT SAFETY NOTE : Products marked with a ⚠ have special characteristics important to safety.
Before replacing any of these components, read carefully the product safety notice of this service manual.
Don't degrade the safety of the product through important servicing.

Symbol	F	G	J	K	M	N	Z	P
%	± 1	± 2	± 5	± 10	± 20	± 30	-20+80	0+100

Symbol	C	D
pF	± 0.25	± 0.5

LOC. NO.	PART NO.	REF. NO.	DESCRIPTION	
CAPACITORS				
The following codes indicate variation of capacitors against temperatures,: **YA**=±5%, **YB**=±10%, **YD**=+20-30%, **YE**=+20-50%(-25~+85°C), **ZF**=+30-80%,(-10~+79°C), **CH**=0±60ppm/°C, **TH**=-470ppm/°C, ±60ppm/°C, **B**=±10%, **F**=+30-80%, **SL**=+350ppm/°C~-1000ppm/°C, **UJ**=-750ppm/°C ±120ppm/°C, **CJ**=0±120ppm/°C, **CK**=0±250ppm/°C				
C1	RC005214	BCMM812214Z	CERAMIC M/L (1608)	220PF 50V J CH
C2	RC001807	BCAZ812296Z	ELECTROLYTIC	2.2UF 50V M C-156
C3	RC005202	BCML311045Z	CERAMIC M/L (1608)	0.1UF 16V K B
C4	RC005420	BCMM811514Z	CERAMIC M/L (1608)	150PF 50V J CH
C5	RC005420	BCMM811514Z	CERAMIC M/L (1608)	150PF 50V J CH
C6	RC005216	BCMM813304Z	CERAMIC M/L (1608)	33PF 50V J CH
C7	RC005217	BCMM813314Z	CERAMIC M/L (1608)	330PF 50V J CH
C8	RC005208	BCML814725Z	CERAMIC M/L (1608)	0.0047UF 50V K B
C9	RC002229	BCXT511045Z	CERAMIC M/L (2125)	0.1UF 25V K B
C10	RC001809	BCAZ814786Z	ELECTROLYTIC	0.47UF 50V M C-156
C11	RC001810	BCAZ814796Z	ELECTROLYTIC	4.7UF 50V M C-156
C12	RC001810	BCAZ814796Z	ELECTROLYTIC	4.7UF 50V M C-156
C13	RC008270	BCML811235Z	CERAMIC M/L (1608)	0.012UF 50V K B
C15	RC001809	BCAZ814786Z	ELECTROLYTIC	0.47UF 50V M C-156
C16	RC005202	BCML311045Z	CERAMIC M/L (1608)	0.1UF 16V K B
C17	RC008731	BCXK311050Z	CERAMIC M/L (2125)	1UF 16V Z F
C18	RC008269	BCML316835Z	CERAMIC M/L (1608)	0.068UF 16V K B
C19	RC005202	BCML311045Z	CERAMIC M/L (1608)	0.1UF 16V K B
C20	RC000777	BCZY0120001	SEMI-CONDUCTOR	CZ-120 0.022UF 18V
C21	RC001794	BCAZ111016Z	ELECTROLYTIC	100UF 10V M C-156
C22	RC005204	BCML811025Z	CERAMIC M/L (1608)	0.001UF 50V K B
C23	RC008020	BCZY0260001	MYLAR METALLIZED	CZ-260 0.56UF 250V K
C24	RC005205	BCML811035Z	CERAMIC M/L (1608)	0.01UF 50V K B
C25	RC005202	BCML311045Z	CERAMIC M/L (1608)	0.1UF 16V K B
C26	RC005202	BCML311045Z	CERAMIC M/L (1608)	0.1UF 16V K B
C27	RC005202	BCML311045Z	CERAMIC M/L (1608)	0.1UF 16V K B
C28	RC001810	BCAZ814796Z	ELECTROLYTIC	4.7UF 50V M C-156
C29	RC004138	BCAZ811006Z	ELECTROLYTIC	10UF 50V M C-156
C30	RC005205	BCML811035Z	CERAMIC M/L (1608)	0.01UF 50V K B
C31	RC008843	BCML313335Z	CERAMIC M/L (1608)	0.033UF 16V K B
C32	RC005220	BCMM816804Z	CERAMIC M/L (1608)	68PF 50V J CH
C33	RC004445	BCAZ903316Z	ELECTROLYTIC	330UF 6.3V M C-156

LOC. NO.	PART NO.	REF. NO.	DESCRIPTION	
C34	RC005202	BCML311045Z	CERAMIC M/L (1608)	0.1UF 16V K B
C35	RC004369	BCDR811096Z	ELECTROLYTIC	1UF 50V M C-292
C36	RC002234	BCXT814735Z	CERAMIC M/L (2125)	0.047UF 50V K B
C37	RC008485	BCMM813914Z	CERAMIC M/L (1608)	390PF 50V J CH
C38	RC009372	BCML511835Z	CERAMIC M/L (1608)	0.018UF 25V K B
C40	RC005216	BCMM813304Z	CERAMIC M/L (1608)	33PF 50V J CH
C41	RC008318	BCML815625Z	CERAMIC M/L (1608)	0.0056UF 50V K B
C42	RC008318	BCML815625Z	CERAMIC M/L (1608)	0.0056UF 50V K B
C43	RC008062	BCMM817092Z	CERAMIC M/L (1608)	7PF 50V D CH
C44	RC005204	BCML811025Z	CERAMIC M/L (1608)	0.001UF 50V K B
C45	RC008843	BCML313335Z	CERAMIC M/L (1608)	0.033UF 16V K B
C46	RC005219	BCMM814704Z	CERAMIC M/L (1608)	47PF 50V J CH
C47	RC005205	BCML811035Z	CERAMIC M/L (1608)	0.01UF 50V K B
C48	RC005205	BCML811035Z	CERAMIC M/L (1608)	0.01UF 50V K B
C49	RC002229	BCXT511045Z	CERAMIC M/L (2125)	0.1UF 25V K B
C50	RC001068	BCXT811025Z	CERAMIC M/L (2125)	0.001UF 50V K B
C51	RC005204	BCML811025Z	CERAMIC M/L (1608)	0.001UF 50V K B
C52	RC001800	BCAZ311016Z	ELECTROLYTIC	100UF 16V M C-156
C53	RC005205	BCML811035Z	CERAMIC M/L (1608)	0.01UF 50V K B
C54	RC008731	BCXK311050Z	CERAMIC M/L (2125)	1UF 16V Z F
C55	RC001796	BCAZ113316Z	ELECTROLYTIC	330UF 10V M C-156
C56	RC004445	BCAZ903316Z	ELECTROLYTIC	330UF 6.3V M C-156
C57	RC005215	BCMM812704Z	CERAMIC M/L (1608)	27PF 50V J CH
C58	RC005215	BCMM812704Z	CERAMIC M/L (1608)	27PF 50V J CH
C59	RC004197	BCDR901016Z	ELECTROLYTIC	100UF 6.3V M C-292
C60	RC008731	BCXK311050Z	CERAMIC M/L (2125)	1UF 16V Z F
C61	RC005275	BCML813925Z	CERAMIC M/L (1608)	0.0039UF 50V K B
C62	RC005209	BCMM811002Z	CERAMIC M/L (1608)	10PF 50V D CH
C63	RC005210	BCMM811014Z	CERAMIC M/L (1608)	100PF 50V J CH
C65	RC001800	BCAZ311016Z	ELECTROLYTIC	100UF 16V M C-156
C66	RC005216	BCMM813304Z	CERAMIC M/L (1608)	33PF 50V J CH
C67	RC005512	BCKB131025Z	CERAMIC	0.001UF 1000V K YB(B)
C68	RC005512	BCKB131025Z	CERAMIC	0.001UF 1000V K YB(B)
C69	RC005205	BCML811035Z	CERAMIC M/L (1608)	0.01UF 50V K B
C70	RC005202	BCML311045Z	CERAMIC M/L (1608)	0.1UF 16V K B
C71	RC001811	BCAZ901016Z	ELECTROLYTIC	100UF 6.3V M C-156
C72	RC008392	BCML811835Z	CERAMIC M/L (1608)	0.018UF 50V K B
C73	RC005202	BCML311045Z	CERAMIC M/L (1608)	0.1UF 16V K B
C74	RC008731	BCXK311050Z	CERAMIC M/L (2125)	1UF 16V Z F
C75	RC005202	BCML311045Z	CERAMIC M/L (1608)	0.1UF 16V K B
C77	RC008731	BCXK311050Z	CERAMIC M/L (2125)	1UF 16V Z F
C78	RC005218	BCMM814091Z	CERAMIC M/L (1608)	4PF 50V C CH
C80	RC005210	BCMM811014Z	CERAMIC M/L (1608)	100PF 50V J CH
C81	RC005210	BCMM811014Z	CERAMIC M/L (1608)	100PF 50V J CH
C82	RC008062	BCMM817092Z	CERAMIC M/L (1608)	7PF 50V D CH
C83	RC005210	BCMM811014Z	CERAMIC M/L (1608)	100PF 50V J CH
C84	RC005213	BCMM811804Z	CERAMIC M/L (1608)	18PF 50V J CH

LOC. NO.	PART NO.	REF. NO.	DESCRIPTION	
C85	RC005216	BCMM813304Z	CERAMIC M/L (1608)	33PF 50V J CH
C86	RC000744	BCKB811025Z	CERAMIC	0.001UF 50V K YB(B)
C87	RC005202	BCML311045Z	CERAMIC M/L (1608)	0.1UF 16V K B
C88	RC005202	BCML311045Z	CERAMIC M/L (1608)	0.1UF 16V K B
C89	RC008146	BCML816825Z	CERAMIC M/L (1608)	0.0068UF 50V K B
C90	RC005205	BCML811035Z	CERAMIC M/L (1608)	0.01UF 50V K B
C91	RC008752	BCML512735Z	CERAMIC M/L (1608)	0.027UF 25V K B
C95	RC005202	BCML311045Z	CERAMIC M/L (1608)	0.1UF 16V K B
C600	RC005202	BCML311045Z	CERAMIC M/L (1608)	0.1UF 16V K B
C601	RC004347	BCXK514740Z	CERAMIC M/L (2125)	0.47UF 25V Z F
C602	RC008319	BCSH904796Z	TANTALUM CHIP	4.7UF 6.3V M C-122
C603	RC008319	BCSH904796Z	TANTALUM CHIP	4.7UF 6.3V M C-122
C605	RC005216	BCMM813304Z	CERAMIC M/L (1608)	33PF 50V J CH
C606	RC008731	BCXK311050Z	CERAMIC M/L (2125)	1UF 16V Z F
C607	RC008296	BCSH901006Z	TANTALUM CHIP	10UF 6.3V M C-122
C608	RC005202	BCML311045Z	CERAMIC M/L (1608)	0.1UF 16V K B
C609	RC008296	BCSH901006Z	TANTALUM CHIP	10UF 6.3V M C-122
C610	RC005204	BCML811025Z	CERAMIC M/L (1608)	0.001UF 50V K B
C611	RC008731	BCXK311050Z	CERAMIC M/L (2125)	1UF 16V Z F
C613	RC008296	BCSH901006Z	TANTALUM CHIP	10UF 6.3V M C-122
C614	RC008296	BCSH901006Z	TANTALUM CHIP	10UF 6.3V M C-122
C615	RC008296	BCSH901006Z	TANTALUM CHIP	10UF 6.3V M C-122
C616	RC004347	BCXK514740Z	CERAMIC M/L (2125)	0.47UF 25V Z F
C617	RC004347	BCXK514740Z	CERAMIC M/L (2125)	0.47UF 25V Z F
C618	RC008731	BCXK311050Z	CERAMIC M/L (2125)	1UF 16V Z F
C619	RC008296	BCSH901006Z	TANTALUM CHIP	10UF 6.3V M C-122
C620	RC005205	BCML811035Z	CERAMIC M/L (1608)	0.01UF 50V K B
C621	RC005203	BCML512235Z	CERAMIC M/L (1608)	0.022UF 25V K B
C622	RC008318	BCML815625Z	CERAMIC M/L (1608)	0.0056UF 50V K B
C623	RC005202	BCML311045Z	CERAMIC M/L (1608)	0.1UF 16V K B
C624	RC008268	BCML314735Z	CERAMIC M/L (1608)	0.047UF 16V K B
C625	RC005205	BCML811035Z	CERAMIC M/L (1608)	0.01UF 50V K B
C628	RC005205	BCML811035Z	CERAMIC M/L (1608)	0.01UF 50V K B
C629	RC005212	BCMM811504Z	CERAMIC M/L (1608)	15PF 50V J CH
C630	RC005212	BCMM811504Z	CERAMIC M/L (1608)	15PF 50V J CH
C631	RC008731	BCXK311050Z	CERAMIC M/L (2125)	1UF 16V Z F
C632	RC009270	BCDB111016Z	ELECTROLYTIC	100UF 10V M C-326
C633	RC005205	BCML811035Z	CERAMIC M/L (1608)	0.01UF 50V K B
C634	RC005205	BCML811035Z	CERAMIC M/L (1608)	0.01UF 50V K B
C635	RC009270	BCDB111016Z	ELECTROLYTIC	100UF 10V M C-326
C636	RC005211	BCMM811204Z	CERAMIC M/L (1608)	12PF 50V J CH
C637	RC005205	BCML811035Z	CERAMIC M/L (1608)	0.01UF 50V K B
C638	RC005401	BCXT111055Z	CERAMIC M/L (2125)	1UF 10V K B
C639	RC008270	BCML811235Z	CERAMIC M/L (1608)	0.012UF 50V K B
C640	RC005213	BCMM811804Z	CERAMIC M/L (1608)	18PF 50V J CH
C641	RC005205	BCML811035Z	CERAMIC M/L (1608)	0.01UF 50V K B
C642	RC005204	BCML811025Z	CERAMIC M/L (1608)	0.001UF 50V K B

LOC. NO.	PART NO.	REF. NO.	DESCRIPTION	
C643	RC005223	BCMS812091Z	CERAMIC M/L (1608)	2PF 50V C CK
C644	RC005401	BCXT111055Z	CERAMIC M/L (2125)	1UF 10V K B
C645	RC005202	BCML311045Z	CERAMIC M/L (1608)	0.1UF 16V K B
C646	RC005205	BCML811035Z	CERAMIC M/L (1608)	0.01UF 50V K B
C647	RC005202	BCML311045Z	CERAMIC M/L (1608)	0.1UF 16V K B
C648	RC005216	BCMM813304Z	CERAMIC M/L (1608)	33PF 50V J CH
C649	RC008447	BCSH312296Z	TANTALUM CHIP	2.2UF 16V M C-122
C650	RC005202	BCML311045Z	CERAMIC M/L (1608)	0.1UF 16V K B
C651	RC005420	BCMM811514Z	CERAMIC M/L (1608)	150PF 50V J CH
C652	RC005420	BCMM811514Z	CERAMIC M/L (1608)	150PF 50V J CH
C653	RC005217	BCMM813314Z	CERAMIC M/L (1608)	330PF 50V J CH
C654	RC008268	BCML314735Z	CERAMIC M/L (1608)	0.047UF 16V K B
C655	RC008268	BCML314735Z	CERAMIC M/L (1608)	0.047UF 16V K B
C656	RC005216	BCMM813304Z	CERAMIC M/L (1608)	33PF 50V J CH
C657	RC005210	BCMM811014Z	CERAMIC M/L (1608)	100PF 50V J CH
C658	RC005208	BCML814725Z	CERAMIC M/L (1608)	0.0047UF 50V K B
C659	RC005205	BCML811035Z	CERAMIC M/L (1608)	0.01UF 50V K B
C660	RC008319	BCSH904796Z	TANTALUM CHIP	4.7UF 6.3V M C-122
C663	RC005209	BCMM811002Z	CERAMIC M/L (1608)	10PF 50V D CH
C667	RC005222	BCMS811091Z	CERAMIC M/L (1608)	1PF 50V C CK
C668	RC005210	BCMM811014Z	CERAMIC M/L (1608)	100PF 50V J CH
C669	RC005210	BCMM811014Z	CERAMIC M/L (1608)	100PF 50V J CH
C670	RC005210	BCMM811014Z	CERAMIC M/L (1608)	100PF 50V J CH
C675	RC005202	BCML311045Z	CERAMIC M/L (1608)	0.1UF 16V K B
C676	RC005204	BCML811025Z	CERAMIC M/L (1608)	0.001UF 50V K B
C677	RC005202	BCML311045Z	CERAMIC M/L (1608)	0.1UF 16V K B
C678	RC005202	BCML311045Z	CERAMIC M/L (1608)	0.1UF 16V K B
C679	RC005202	BCML311045Z	CERAMIC M/L (1608)	0.1UF 16V K B
C680	RC005202	BCML311045Z	CERAMIC M/L (1608)	0.1UF 16V K B
C681	RC005202	BCML311045Z	CERAMIC M/L (1608)	0.1UF 16V K B
C682	RC008731	BCXK311050Z	CERAMIC M/L (2125)	1UF 16V Z F
C683	RC005205	BCML811035Z	CERAMIC M/L (1608)	0.01UF 50V K B
C684	RC005205	BCML811035Z	CERAMIC M/L (1608)	0.01UF 50V K B
C685	RC005209	BCMM811002Z	CERAMIC M/L (1608)	10PF 50V D CH
C686	RC005209	BCMM811002Z	CERAMIC M/L (1608)	10PF 50V D CH
C687	RC005220	BCMM816804Z	CERAMIC M/L (1608)	68PF 50V J CH
C688	RC008515	BCMM815604Z	CERAMIC M/L (1608)	56PF 50V J CH
C689	RC008268	BCML314735Z	CERAMIC M/L (1608)	0.047UF 16V K B
C692	RC005209	BCMM811002Z	CERAMIC M/L (1608)	10PF 50V D CH
C696	RC002229	BCXT511045Z	CERAMIC M/L (2125)	0.1UF 25V K B
C697	RC005207	BCML813325Z	CERAMIC M/L (1608)	0.0033UF 50V K B
C698	RC005207	BCML813325Z	CERAMIC M/L (1608)	0.0033UF 50V K B
C699	RC005289	BCMM815091Z	CERAMIC M/L (1608)	5PF 50V C CH
CT1	RC008272	BCTY0076100	TRIMMER	CT-076 TZ3Z100FR 10PF
CT601	RC008272	BCTY0076100	TRIMMER	CT-076 TZ3Z100FR 10PF

LOC. NO.	PART NO.	REF. NO.	DESCRIPTION	
DIODES				
D1	RC002236	BDAY0246003		1N4148 T-77
D2	RC004851	BDAY0432007	ZENER	HZK7C TR
D3	RC002468	BDAY0492008	ZENER	HZ33-2 TD
D4	RC002236	BDAY0246003		1N4148 T-77
D5	RC002236	BDAY0246003		1N4148 T-77
D6	RC008274	BDAY1084001	LED	MVR3338ST-922
D9	RC002236	BDAY0246003		1N4148 T-77
D10	RC002236	BDAY0246003		1N4148 T-77
D11	RC008885	BDAY0492031	ZENER	HZ6B2 TD
D12	RC002236	BDAY0246003		1N4148 T-77
D13	RC008273	BDAY0492036	ZENER	HZ4B1 TD
D15	RC002236	BDAY0246003		1N4148 T-77
D16	RC002236	BDAY0246003		1N4148 T-77
D17	RC002236	BDAY0246003		1N4148 T-77
D602	RC001826	BDAY0433001		RLS4148 TE11
D604	RC001826	BDAY0433001		RLS4148 TE11
D606	RC001826	BDAY0433001		RLS4148 TE11
D607	RC001826	BDAY0433001		RLS4148 TE11
D608	RC003195	BDAY0432004	ZENER	HZK6C TR
D609	RC003195	BDAY0432004	ZENER	HZK6C TR
D610	RC001635	BDAY0274001		1SS226 TE85L
D611	RC001635	BDAY0274001		1SS226 TE85L
D612	RC009347	BDAY1109001		EMPG4868K-8C0
D613	RC009347	BDAY1109001		EMPG4868K-8C0
D614	RC009347	BDAY1109001		EMPG4868K-8C0
D615	RC008448	BDAY1065001		RB420D T146
FILTERS				
FT1	RC008279	BFLY0971001	CERAMIC	FL-971 FFE1054NA11UXL
FT2	RC008280	BFLY0977001	CERAMIC	FL-977 LTFS455B5
FT601	RC008279	BFLY0971001	CERAMIC	FL-971 FFE1054NA11UXL
FT602	RC008280	BFLY0977001	CERAMIC	FL-977 LTFS455B5
IC's				
IC1	RC009438	BDEY3972003		LA8634VU-TLM
IC2	RC009520	BDDY1067001	UC2523	UPD780024AGC-550-AB8
IC3	RC004870	BDEY2768003		MC3361CDR2
IC4	RC008277	BDEY2268001		⚠ PS2501-1 K
IC5	RC009522	BDEY4007003		SM8224BM-E2
IC6	RC009439	BDEY3980003		XC61CC2802PR/XC61AC2802PR
IC8	RC005516	BDEY1058003		LC7366NM-TP-T2
IC601	RC009438	BDEY3972003		LA8634VU-TLM
IC602	RC008322	BDEY3882003		TK11130SCL
IC603	RC009521	BDDY1068001	UC2524	MB89538PFM-G-175-BND
IC605	RC008323	BDEY3886003		XC612N3328MR
IC606	RC004870	BDEY2768003		MC3361CDR2
IC608	RC008799	BDEY3181003		24LC16BT/SN
IC609	RC008859	BDEY2927003		RH5RE32AA-T1

LOC. NO.	PART NO.	REF. NO.	DESCRIPTION	
JACKS				
J1	RC008992	BJKY1183002	JACK	⚠ JK-1183 MJ-62J-RD315
J2	RC001094	BJKY0234001	JACK	JK-234 DJ13-1
J603	RC001653	BJKY0571001	JACK	JK-571 M60-002-020-HKAD
COILS				
L2	RC008397	BLZY0136100	INDUCTOR:MOLDED CHIP	LZ-136 MLF1608K100KT 10UH
L3	RC008281	BLBY1175001	COIL	LB-1175 7002BE-A0026HM
L4	RC008587	BLZY0181107	INDUCTOR:MOLDED CHIP	LZ-181 10NH J
L602	RC008397	BLZY0136100	INDUCTOR:MOLDED CHIP	LZ-136 MLF1608K100KT 10UH
L603	RC008281	BLBY1175001	COIL	LB-1175 7002BE-A0026HM
L604	RC008398	BLZY0181186	INDUCTOR:MOLDED CHIP	LZ-181 1.8NH
L606	RC008397	BLZY0136100	INDUCTOR:MOLDED CHIP	LZ-136 MLF1608K100KT 10UH
L607	RC008397	BLZY0136100	INDUCTOR:MOLDED CHIP	LZ-136 MLF1608K100KT 10UH
T1	RC003234	BTFY0265001	TRANSFORMER:HYBRID	⚠ TF-265 AT-24E7-1B(295403)
TRANSISTORS				
Q1	RC002245	BDBC2714124		DB-718 2SC2714-Y TE85L
Q2	RC003031	BDBC1623648		DB-380 2SC1623-L6 T1B
Q3	RC001637	BDBC2712303		DB-381 2SC2712-GR TE85L
Q4	RC003031	BDBC1623648		DB-380 2SC1623-L6 T1B
Q6	RC003031	BDBC1623648		DB-380 2SC1623-L6 T1B
Q7	RC003200	BDBD0471111		DB-411 2SD471-L
Q8	RC003200	BDBD0471111		DB-411 2SD471-L
Q9	RC003031	BDBC1623648		DB-380 2SC1623-L6 T1B
Q10	RC001637	BDBC2712303		DB-381 2SC2712-GR TE85L
Q11	RC003200	BDBD0471111		DB-411 2SD471-L
Q16	RC008275	BDBA0812695		DB-035 2SA812(M)-M6A T1B
Q600	RC003031	BDBC1623648		DB-380 2SC1623-L6 T1B
Q601	RC003031	BDBC1623648		DB-380 2SC1623-L6 T1B
Q602	RC003031	BDBC1623648		DB-380 2SC1623-L6 T1B
Q603	RC003031	BDBC1623648		DB-380 2SC1623-L6 T1B
Q604	RC003031	BDBC1623648		DB-380 2SC1623-L6 T1B
Q609	RC008275	BDBA0812695		DB-035 2SA812(M)-M6A T1B
Q610	RC003031	BDBC1623648		DB-380 2SC1623-L6 T1B
Q611	RC003031	BDBC1623648		DB-380 2SC1623-L6 T1B
Q612	RC002245	BDBC2714124		DB-718 2SC2714-Y TE85L
Q613	RC008275	BDBA0812695		DB-035 2SA812(M)-M6A T1B
Q614	RC001637	BDBC2712303		DB-381 2SC2712-GR TE85L
Q616	RC003031	BDBC1623648		DB-380 2SC1623-L6 T1B
Q617	RC003031	BDBC1623648		DB-380 2SC1623-L6 T1B
RESISTORS				
R1	RC005252	BRFC163314Z	CARBON FIXED CHIP	330 1/16W J
R2	RC005245	BRFC161834Z	CARBON FIXED CHIP	18K 1/16W J
R3	RC005281	BRFC162224Z	CARBON FIXED CHIP	2.2K 1/16W J
R4	RC005288	BRFC168244Z	CARBON FIXED CHIP	820K 1/16W J
R5	RC005253	BRFC163324Z	CARBON FIXED CHIP	3.3K 1/16W J
R6	RC005241	BRFC161034Z	CARBON FIXED CHIP	10K 1/16W J
R7	RC005248	BRFC162234Z	CARBON FIXED CHIP	22K 1/16W J

LOC. NO.	PART NO.	REF. NO.	DESCRIPTION	
R8	RC005311	BRFC160004Z	CARBON FIXED CHIP	0 1/16W J
R9	RC005248	BRFC162234Z	CARBON FIXED CHIP	22K 1/16W J
R10	RC005248	BRFC162234Z	CARBON FIXED CHIP	22K 1/16W J
R11	RC005242	BRFC161044Z	CARBON FIXED CHIP	100K 1/16W J
R12	RC005262	BRFC168234Z	CARBON FIXED CHIP	82K 1/16W J
R13	RC005257	BRFC164734Z	CARBON FIXED CHIP	47K 1/16W J
R14	RC005248	BRFC162234Z	CARBON FIXED CHIP	22K 1/16W J
R15	RC005281	BRFC162224Z	CARBON FIXED CHIP	2.2K 1/16W J
R16	RC005280	BRFC161534Z	CARBON FIXED CHIP	15K 1/16W J
R17	RC003225	BRFC181014Z	CARBON FIXED CHIP	100 1/8W J
R18	RC005255	BRFC164714Z	CARBON FIXED CHIP	470 1/16W J
R19	RC008091	BRFC165614Z	CARBON FIXED CHIP	560 1/16W J
R20	RC005261	BRFC168224Z	CARBON FIXED CHIP	8.2K 1/16W J
R21	RC005280	BRFC161534Z	CARBON FIXED CHIP	15K 1/16W J
R22	RC005260	BRFC166834Z	CARBON FIXED CHIP	68K 1/16W J
R23	RC005259	BRFC166814Z	CARBON FIXED CHIP	680 1/16W J
R24	RC002349	BRSJ221034Z	METAL OXIDE	⚠ 10K 1/2WS J
R25	RC009305	BRZY0085001	METAL OXIDE (FORMED)	⚠ RZ-085 150 1WS J (P=12.5)
R26	RC005249	BRFC162244Z	CARBON FIXED CHIP	220K 1/16W J
R27	RC005255	BRFC164714Z	CARBON FIXED CHIP	470 1/16W J
R28	RC005603	BRPA618234Z	CARBON AXIAL LEAD (26)	82K 1/6W J
R29	RC005241	BRFC161034Z	CARBON FIXED CHIP	10K 1/16W J
R30	RC005240	BRFC161024Z	CARBON FIXED CHIP	1K 1/16W J
R31	RC005240	BRFC161024Z	CARBON FIXED CHIP	1K 1/16W J
R32	RC005257	BRFC164734Z	CARBON FIXED CHIP	47K 1/16W J
R33	RC005239	BRFC161014Z	CARBON FIXED CHIP	100 1/16W J
R34	RC005256	BRFC164724Z	CARBON FIXED CHIP	4.7K 1/16W J
R35	RC008286	BRFC162744Z	CARBON FIXED CHIP	270K 1/16W J
R36	RC005239	BRFC161014Z	CARBON FIXED CHIP	100 1/16W J
R37	RC005240	BRFC161024Z	CARBON FIXED CHIP	1K 1/16W J
R39	RC005240	BRFC161024Z	CARBON FIXED CHIP	1K 1/16W J
R40	RC008091	BRFC165614Z	CARBON FIXED CHIP	560 1/16W J
R41	RC005258	BRFC164744Z	CARBON FIXED CHIP	470K 1/16W J
R42	RC005240	BRFC161024Z	CARBON FIXED CHIP	1K 1/16W J
R43	RC008028	BRFC162724Z	CARBON FIXED CHIP	2.7K 1/16W J
R44	RC008481	BRFC181514Z	CARBON FIXED CHIP	150 1/8W J
R45	RC005256	BRFC164724Z	CARBON FIXED CHIP	4.7K 1/16W J
R46	RC005256	BRFC164724Z	CARBON FIXED CHIP	4.7K 1/16W J
R47	RC005311	BRFC160004Z	CARBON FIXED CHIP	0 1/16W J
R48	RC005240	BRFC161024Z	CARBON FIXED CHIP	1K 1/16W J
R49	RC005240	BRFC161024Z	CARBON FIXED CHIP	1K 1/16W J
R50	RC005240	BRFC161024Z	CARBON FIXED CHIP	1K 1/16W J
R51	RC005256	BRFC164724Z	CARBON FIXED CHIP	4.7K 1/16W J
R52	RC004972	BRPA614724Z	CARBON AXIAL LEAD (26)	4.7K 1/6W J
R53	RC005283	BRFC162734Z	CARBON FIXED CHIP	27K 1/16W J
R54	RC004174	BRPA611024Z	CARBON AXIAL LEAD (26)	1K 1/6W J
R55	RC005240	BRFC161024Z	CARBON FIXED CHIP	1K 1/16W J

LOC. NO.	PART NO.	REF. NO.	DESCRIPTION	
R56	RC005240	BRFC161024Z	CARBON FIXED CHIP	1K 1/16W J
R57	RC005257	BRFC164734Z	CARBON FIXED CHIP	47K 1/16W J
R58	RC005242	BRFC161044Z	CARBON FIXED CHIP	100K 1/16W J
R59	RC005241	BRFC161034Z	CARBON FIXED CHIP	10K 1/16W J
R60	RC002320	BRFC014714Z	CARBON FIXED CHIP	470 1/10W J
R61	RC002915	BRFC011514Z	CARBON FIXED CHIP	150 1/10W J
R62	RC008028	BRFC162724Z	CARBON FIXED CHIP	2.7K 1/16W J
R63	RC005240	BRFC161024Z	CARBON FIXED CHIP	1K 1/16W J
R64	RC005246	BRFC162204Z	CARBON FIXED CHIP	22 1/16W J
R65	RC002327	BRFC016804Z	CARBON FIXED CHIP	68 1/10W J
R66	RC005242	BRFC161044Z	CARBON FIXED CHIP	100K 1/16W J
R67	RC005247	BRFC162214Z	CARBON FIXED CHIP	220 1/16W J
R68	RC005242	BRFC161044Z	CARBON FIXED CHIP	100K 1/16W J
R69	RC005242	BRFC161044Z	CARBON FIXED CHIP	100K 1/16W J
R70	RC005242	BRFC161044Z	CARBON FIXED CHIP	100K 1/16W J
R71	RC008732	BRFC161214Z	CARBON FIXED CHIP	120 1/16W J
R72	RC005246	BRFC162204Z	CARBON FIXED CHIP	22 1/16W J
R73	RC005240	BRFC161024Z	CARBON FIXED CHIP	1K 1/16W J
R74	RC005242	BRFC161044Z	CARBON FIXED CHIP	100K 1/16W J
R75	RC002799	BRFC181024Z	CARBON FIXED CHIP	1K 1/8W J
R76	RC005281	BRFC162224Z	CARBON FIXED CHIP	2.2K 1/16W J
R77	RC005257	BRFC164734Z	CARBON FIXED CHIP	47K 1/16W J
R78	RC004184	BRPA614734Z	CARBON AXIAL LEAD (26)	47K 1/6W J
R79	RC005242	BRFC161044Z	CARBON FIXED CHIP	100K 1/16W J
R80	RC008734	BRFC162254Z	CARBON FIXED CHIP	2.2M 1/16W J
R81	RC008765	BRFC161004Z	CARBON FIXED CHIP	10 1/16W J
R82	RC005285	BRFC165634Z	CARBON FIXED CHIP	56K 1/16W J
R83	RC005256	BRFC164724Z	CARBON FIXED CHIP	4.7K 1/16W J
R85	RC005258	BRFC164744Z	CARBON FIXED CHIP	470K 1/16W J
R86	RC005285	BRFC165634Z	CARBON FIXED CHIP	56K 1/16W J
R87	RC005257	BRFC164734Z	CARBON FIXED CHIP	47K 1/16W J
R88	RC005242	BRFC161044Z	CARBON FIXED CHIP	100K 1/16W J
R89	RC008767	BRFC163344Z	CARBON FIXED CHIP	330K 1/16W J
R90	RC003446	BRFC011214Z	CARBON FIXED CHIP	120 1/10W J
R91	RC003446	BRFC011214Z	CARBON FIXED CHIP	120 1/10W J
R92	RC002295	BRFC011014Z	CARBON FIXED CHIP	100 1/10W J
R93	RC005260	BRFC166834Z	CARBON FIXED CHIP	68K 1/16W J
R94	RC008286	BRFC162744Z	CARBON FIXED CHIP	270K 1/16W J
R95	RC005285	BRFC165634Z	CARBON FIXED CHIP	56K 1/16W J
R96	RC005283	BRFC162734Z	CARBON FIXED CHIP	27K 1/16W J
R97	RC005283	BRFC162734Z	CARBON FIXED CHIP	27K 1/16W J
R98	RC008022	BRPA612744Z	CARBON AXIAL LEAD (26)	270K 1/6W J
R99	RC008022	BRPA612744Z	CARBON AXIAL LEAD (26)	270K 1/6W J
R100	RC005240	BRFC161024Z	CARBON FIXED CHIP	1K 1/16W J
R101	RC005257	BRFC164734Z	CARBON FIXED CHIP	47K 1/16W J
R102	RC008029	BRFC163924Z	CARBON FIXED CHIP	3.9K 1/16W J
R103	RC003446	BRFC011214Z	CARBON FIXED CHIP	120 1/10W J

LOC. NO.	PART NO.	REF. NO.	DESCRIPTION	
R104	RC005240	BRFC161024Z	CARBON FIXED CHIP	1K 1/16W J
R105	RC008029	BRFC163924Z	CARBON FIXED CHIP	3.9K 1/16W J
R106	RC008553	BRFC161043Z	CARBON FIXED CHIP	100K 1/16W F
R107	RC005280	BRFC161534Z	CARBON FIXED CHIP	15K 1/16W J
R108	RC005240	BRFC161024Z	CARBON FIXED CHIP	1K 1/16W J
R109	RC005242	BRFC161044Z	CARBON FIXED CHIP	100K 1/16W J
R110	RC005240	BRFC161024Z	CARBON FIXED CHIP	1K 1/16W J
R111	RC005311	BRFC160004Z	CARBON FIXED CHIP	0 1/16W J
R112	RC005434	BRFC163914Z	CARBON FIXED CHIP	390 1/16W J
R113	RC005240	BRFC161024Z	CARBON FIXED CHIP	1K 1/16W J
R114	RC005240	BRFC161024Z	CARBON FIXED CHIP	1K 1/16W J
R115	RC005240	BRFC161024Z	CARBON FIXED CHIP	1K 1/16W J
R116	RC005255	BRFC164714Z	CARBON FIXED CHIP	470 1/16W J
R117	RC005240	BRFC161024Z	CARBON FIXED CHIP	1K 1/16W J
R118	RC005240	BRFC161024Z	CARBON FIXED CHIP	1K 1/16W J
R119	RC005240	BRFC161024Z	CARBON FIXED CHIP	1K 1/16W J
R120	RC005240	BRFC161024Z	CARBON FIXED CHIP	1K 1/16W J
R121	RC005240	BRFC161024Z	CARBON FIXED CHIP	1K 1/16W J
R122	RC005311	BRFC160004Z	CARBON FIXED CHIP	0 1/16W J
R123	RC005281	BRFC162224Z	CARBON FIXED CHIP	2.2K 1/16W J
R124	RC005311	BRFC160004Z	CARBON FIXED CHIP	0 1/16W J
R125	RC008091	BRFC165614Z	CARBON FIXED CHIP	560 1/16W J
R126	RC002898	BRFC010004Z	CARBON FIXED CHIP	0 1/10W J
R127	RC005311	BRFC160004Z	CARBON FIXED CHIP	0 1/16W J
R128	RC005311	BRFC160004Z	CARBON FIXED CHIP	0 1/16W J
R129	RC002899	BRFC180004Z	CARBON FIXED CHIP	0 1/8W J
R130	RC005311	BRFC160004Z	CARBON FIXED CHIP	0 1/16W J
R131	RC002898	BRFC010004Z	CARBON FIXED CHIP	0 1/10W J
R133	RC005673	BRFC163934Z	CARBON FIXED CHIP	39K 1/16W J
R134	RC005311	BRFC160004Z	CARBON FIXED CHIP	0 1/16W J
R135	RC005242	BRFC161044Z	CARBON FIXED CHIP	100K 1/16W J
R136	RC005311	BRFC160004Z	CARBON FIXED CHIP	0 1/16W J
R600	RC005248	BRFC162234Z	CARBON FIXED CHIP	22K 1/16W J
R601	RC005256	BRFC164724Z	CARBON FIXED CHIP	4.7K 1/16W J
R602	RC005256	BRFC164724Z	CARBON FIXED CHIP	4.7K 1/16W J
R603	RC005256	BRFC164724Z	CARBON FIXED CHIP	4.7K 1/16W J
R604	RC005281	BRFC162224Z	CARBON FIXED CHIP	2.2K 1/16W J
R605	RC005241	BRFC161034Z	CARBON FIXED CHIP	10K 1/16W J
R606	RC005241	BRFC161034Z	CARBON FIXED CHIP	10K 1/16W J
R607	RC005253	BRFC163324Z	CARBON FIXED CHIP	3.3K 1/16W J
R608	RC005248	BRFC162234Z	CARBON FIXED CHIP	22K 1/16W J
R609	RC005248	BRFC162234Z	CARBON FIXED CHIP	22K 1/16W J
R610	RC008027	BRFC161234Z	CARBON FIXED CHIP	12K 1/16W J
R611	RC005280	BRFC161534Z	CARBON FIXED CHIP	15K 1/16W J
R613	RC005240	BRFC161024Z	CARBON FIXED CHIP	1K 1/16W J
R614	RC005280	BRFC161534Z	CARBON FIXED CHIP	15K 1/16W J
R615	RC005247	BRFC162214Z	CARBON FIXED CHIP	220 1/16W J

LOC. NO.	PART NO.	REF. NO.	DESCRIPTION	
R616	RC005280	BRFC161534Z	CARBON FIXED CHIP	15K 1/16W J
R617	RC008454	BRFC165604Z	CARBON FIXED CHIP	56 1/16W J
R618	RC005242	BRFC161044Z	CARBON FIXED CHIP	100K 1/16W J
R619	RC005242	BRFC161044Z	CARBON FIXED CHIP	100K 1/16W J
R620	RC005240	BRFC161024Z	CARBON FIXED CHIP	1K 1/16W J
R621	RC005240	BRFC161024Z	CARBON FIXED CHIP	1K 1/16W J
R622	RC008030	BRFC165624Z	CARBON FIXED CHIP	5.6K 1/16W J
R623	RC005249	BRFC162244Z	CARBON FIXED CHIP	220K 1/16W J
R624	RC005245	BRFC161834Z	CARBON FIXED CHIP	18K 1/16W J
R625	RC005242	BRFC161044Z	CARBON FIXED CHIP	100K 1/16W J
R626	RC005240	BRFC161024Z	CARBON FIXED CHIP	1K 1/16W J
R627	RC008029	BRFC163924Z	CARBON FIXED CHIP	3.9K 1/16W J
R628	RC005288	BRFC168244Z	CARBON FIXED CHIP	820K 1/16W J
R629	RC008732	BRFC161214Z	CARBON FIXED CHIP	120 1/16W J
R630	RC005240	BRFC161024Z	CARBON FIXED CHIP	1K 1/16W J
R631	RC005285	BRFC165634Z	CARBON FIXED CHIP	56K 1/16W J
R632	RC005242	BRFC161044Z	CARBON FIXED CHIP	100K 1/16W J
R633	RC005240	BRFC161024Z	CARBON FIXED CHIP	1K 1/16W J
R634	RC005242	BRFC161044Z	CARBON FIXED CHIP	100K 1/16W J
R635	RC005242	BRFC161044Z	CARBON FIXED CHIP	100K 1/16W J
R636	RC005283	BRFC162734Z	CARBON FIXED CHIP	27K 1/16W J
R637	RC005285	BRFC165634Z	CARBON FIXED CHIP	56K 1/16W J
R638	RC005285	BRFC165634Z	CARBON FIXED CHIP	56K 1/16W J
R639	RC005284	BRFC163334Z	CARBON FIXED CHIP	33K 1/16W J
R640	RC005240	BRFC161024Z	CARBON FIXED CHIP	1K 1/16W J
R641	RC005253	BRFC163324Z	CARBON FIXED CHIP	3.3K 1/16W J
R642	RC005240	BRFC161024Z	CARBON FIXED CHIP	1K 1/16W J
R643	RC005256	BRFC164724Z	CARBON FIXED CHIP	4.7K 1/16W J
R644	RC005240	BRFC161024Z	CARBON FIXED CHIP	1K 1/16W J
R645	RC005257	BRFC164734Z	CARBON FIXED CHIP	47K 1/16W J
R646	RC005258	BRFC164744Z	CARBON FIXED CHIP	470K 1/16W J
R647	RC005259	BRFC166814Z	CARBON FIXED CHIP	680 1/16W J
R648	RC005281	BRFC162224Z	CARBON FIXED CHIP	2.2K 1/16W J
R649	RC005284	BRFC163334Z	CARBON FIXED CHIP	33K 1/16W J
R650	RC005281	BRFC162224Z	CARBON FIXED CHIP	2.2K 1/16W J
R651	RC005256	BRFC164724Z	CARBON FIXED CHIP	4.7K 1/16W J
R652	RC005240	BRFC161024Z	CARBON FIXED CHIP	1K 1/16W J
R653	RC005240	BRFC161024Z	CARBON FIXED CHIP	1K 1/16W J
R654	RC005280	BRFC161534Z	CARBON FIXED CHIP	15K 1/16W J
R655	RC005241	BRFC161034Z	CARBON FIXED CHIP	10K 1/16W J
R656	RC005240	BRFC161024Z	CARBON FIXED CHIP	1K 1/16W J
R657	RC005241	BRFC161034Z	CARBON FIXED CHIP	10K 1/16W J
R658	RC005286	BRFC165644Z	CARBON FIXED CHIP	560K 1/16W J
R659	RC005242	BRFC161044Z	CARBON FIXED CHIP	100K 1/16W J
R660	RC005247	BRFC162214Z	CARBON FIXED CHIP	220 1/16W J
R661	RC005249	BRFC162244Z	CARBON FIXED CHIP	220K 1/16W J
R662	RC005252	BRFC163314Z	CARBON FIXED CHIP	330 1/16W J

LOC. NO.	PART NO.	REF. NO.	DESCRIPTION	
R663	RC005255	BRFC164714Z	CARBON FIXED CHIP	470 1/16W J
R664	RC005245	BRFC161834Z	CARBON FIXED CHIP	18K 1/16W J
R665	RC008028	BRFC162724Z	CARBON FIXED CHIP	2.7K 1/16W J
R666	RC005280	BRFC161534Z	CARBON FIXED CHIP	15K 1/16W J
R667	RC005288	BRFC168244Z	CARBON FIXED CHIP	820K 1/16W J
R668	RC005241	BRFC161034Z	CARBON FIXED CHIP	10K 1/16W J
R669	RC005253	BRFC163324Z	CARBON FIXED CHIP	3.3K 1/16W J
R670	RC005241	BRFC161034Z	CARBON FIXED CHIP	10K 1/16W J
R671	RC005311	BRFC160004Z	CARBON FIXED CHIP	0 1/16W J
R672	RC005241	BRFC161034Z	CARBON FIXED CHIP	10K 1/16W J
R673	RC005241	BRFC161034Z	CARBON FIXED CHIP	10K 1/16W J
R674	RC008765	BRFC161004Z	CARBON FIXED CHIP	10 1/16W J
R675	RC005241	BRFC161034Z	CARBON FIXED CHIP	10K 1/16W J
R676	RC005256	BRFC164724Z	CARBON FIXED CHIP	4.7K 1/16W J
R677	RC005311	BRFC160004Z	CARBON FIXED CHIP	0 1/16W J
R678	RC005311	BRFC160004Z	CARBON FIXED CHIP	0 1/16W J
R679	RC005248	BRFC162234Z	CARBON FIXED CHIP	22K 1/16W J
R680	RC005246	BRFC162204Z	CARBON FIXED CHIP	22 1/16W J
R681	RC005239	BRFC161014Z	CARBON FIXED CHIP	100 1/16W J
R682	RC005311	BRFC160004Z	CARBON FIXED CHIP	0 1/16W J
R683	RC005241	BRFC161034Z	CARBON FIXED CHIP	10K 1/16W J
R684	RC005241	BRFC161034Z	CARBON FIXED CHIP	10K 1/16W J
R685	RC005240	BRFC161024Z	CARBON FIXED CHIP	1K 1/16W J
R686	RC005240	BRFC161024Z	CARBON FIXED CHIP	1K 1/16W J
R687	RC005242	BRFC161044Z	CARBON FIXED CHIP	100K 1/16W J
R688	RC005281	BRFC162224Z	CARBON FIXED CHIP	2.2K 1/16W J
R689	RC005281	BRFC162224Z	CARBON FIXED CHIP	2.2K 1/16W J
R690	RC008030	BRFC165624Z	CARBON FIXED CHIP	5.6K 1/16W J
R691	RC005257	BRFC164734Z	CARBON FIXED CHIP	47K 1/16W J
R693	RC005240	BRFC161024Z	CARBON FIXED CHIP	1K 1/16W J
R694	RC005240	BRFC161024Z	CARBON FIXED CHIP	1K 1/16W J
R695	RC005240	BRFC161024Z	CARBON FIXED CHIP	1K 1/16W J
R696	RC005240	BRFC161024Z	CARBON FIXED CHIP	1K 1/16W J
R697	RC005240	BRFC161024Z	CARBON FIXED CHIP	1K 1/16W J
R698	RC005240	BRFC161024Z	CARBON FIXED CHIP	1K 1/16W J
R699	RC005240	BRFC161024Z	CARBON FIXED CHIP	1K 1/16W J
R700	RC002327	BRFC016804Z	CARBON FIXED CHIP	68 1/10W J
R701	RC002327	BRFC016804Z	CARBON FIXED CHIP	68 1/10W J
R702	RC002327	BRFC016804Z	CARBON FIXED CHIP	68 1/10W J
R703	RC005285	BRFC165634Z	CARBON FIXED CHIP	56K 1/16W J
R704	RC005285	BRFC165634Z	CARBON FIXED CHIP	56K 1/16W J
R705	RC005285	BRFC165634Z	CARBON FIXED CHIP	56K 1/16W J
R706	RC005242	BRFC161044Z	CARBON FIXED CHIP	100K 1/16W J
R707	RC002899	BRFC180004Z	CARBON FIXED CHIP	0 1/8W J
R708	RC002899	BRFC180004Z	CARBON FIXED CHIP	0 1/8W J
R709	RC005281	BRFC162224Z	CARBON FIXED CHIP	2.2K 1/16W J
R710	RC005311	BRFC160004Z	CARBON FIXED CHIP	0 1/16W J

LOC. NO.	PART NO.	REF. NO.	DESCRIPTION	
R711	RC008734	BRFC162254Z	CARBON FIXED CHIP	2.2M 1/16W J
R712	RC005311	BRFC160004Z	CARBON FIXED CHIP	0 1/16W J
RT1	RC008287	BRTY0572204	SEMI-FIXED	RT-572 NVZ6TL1B204 200KB
RT2	RC004606	BRTY0572104	SEMI-FIXED	RT-572 NVZ6TL1B104 100KB
RT3	RC005661	BRTY0572203	SEMI-FIXED	RT-572 NVZ6TL1B203 20KB
RT601	RC008328	BRTY0569224	SEMI-FIXED	RT-569 POZ3AN-1-224N-T00
RT602	RC008326	BRTY0569104	SEMI-FIXED	RT-569 POZ3AN-1-104N-T00
RT603	RC008327	BRTY0569223	SEMI-FIXED	RT-569 POZ3AN-1-223N-T00
CRYTSTALS				
X1	RC003629	BQXY0542001	CRYSTAL	QX-542 3.579545MHZ
X2	RC008285	BQXY0721001	CRYSTAL	QX-721 10.1MHZ
X601	RC008453	BQXY0714001	CRYSTAL	QX-714 4.192MHZ CSA-309
X602	RC008285	BQXY0721001	CRYSTAL	QX-721 10.1MHZ
OTHER ELECTRICAL PARTS				
AD901	RC004930	BADY0368001	AC ADAPTOR	⚠ AD-368 HY-9322
AT850	RC009434	BATY0392001	ANTENNA	⚠ AT-392 AT-40
B301	RC009431	AC267BHBB	RF MODULE (B)	
B501	RC009433	AC267BHPB	RF MODULE (P)	
BT901	RC004931	BBTY0403001	BATTERY	⚠ BT-403 GP60AAK3BMX
DP601	RC009351	BDLY0202001	LIQUID CRYSTAL DISPLAY	DL-202 NCOG089(NCOG100)
MC601	RC004062	BMKY0475001	MICROPHONE	MK-475 WM-034BZ
RL001	RC000867	BRLY0042001	RELAY	⚠ RL-042 OMR-108H
S1	RC004253	BSWY0784001	SWITCH	SW-784 KSM0611B
S2	RC003604	BSWY0755001	SWITCH:SLIDE	SW-755 SBHA12B-06
SP801	RC008336	BSPY0409001	SPEAKER	⚠ SP-409 DTR169HP-005
W1	RC008998	CUPB013032Z	WIRE W-004	UL 1571 #26 7-130- 5 RED
W2	RC008999	CUPK013032Z	WIRE W-004	UL 1571 #26 7-130- 5 BLK
W601	RC008329	CZDZ072199Z	WIRES ASSEMBLED	W-072199
W801	RC009390	CUPJ007011Z	WIRE W-004	UL 1571 #26 3- 70- 3 WHT
W802	RC001317	CUPK007011Z	WIRE W-004	UL 1571 #26 3- 70- 3 BLK
WA901	RC008231	BWZY1401001	TEL CORD	⚠ WZ-1401 UNL-020-2GY-214
Y601	RC004910	BYYY0901001	RINGER	YY-901 CB-12AP-03
PACKING PARTS				
	RC009245	GBCT447691Z	WALL MOUNT	ABS
	RC004688	PLBB454286Z	LABEL:BARCODE	PAPER
	RC009532	PLBB462821Z	LABEL:BARCODE	PAPER
	RC009249	UCZZ01268BZ	OWNER'S MANUAL	
	RC009168	UCZZ69676BA	QUICK REFERENCE GUIDE	
	RC005198	UDZZ73535ZZ	CAUTION BELT	
	RC008351	VNYH1303500	VINYL BAG	300X350X0.05T HIPE
	RC008783	VNYL2304060	VINYL BAG	300X400X600X0.07T
	RC008353	VNYL3101000	VINYL BAG	100X100X0.1T
	RC003649	VNYL3203000	VINYL BAG	200X300X0.1T
	RC009236	WBXZ347721Z	DISPLAY BOX	
	RC009536	WCTZ462746Z	SHIPPING CARTON BOX	
	RC004291	WETC420086Z	COVER:ANT.	EPE
	RC009341	WSLV344952Z	SLEEVE	

LOC. NO.	PART NO.	REF. NO.	DESCRIPTION
	RC009342	WSLV344953Z	SLEEVE
	RC009343	WSLV428000Z	PACKING BAG(PORT.) MIRA MAT
	RC009344	WSLV444958Z	SLEEVE

ASSEMBLY PARTS LIST

NOTE: Following part numbers are not available as replacement parts.
Order parts necessary for repair or contact the Toshiba Factory Service Center.

LOC. NO.	PART NO.	REF. NO.	DESCRIPTION
	RC009518	AC268BHBA	BASE MAIN PCB ASSEMBLY
	RC009519	AC268BHPA	HANDSET MAIN PCB ASSEMBLY

SPECIFICATIONS

MEASUREMENT CONDITIONS

1. Standard Voltage :Portable Unit .... DC 3.8V ± 0.025V
   :Base Unit .... AC 120V ± 3V 60Hz
2. Temperature :25°C ± 5°C
3. Channel

FCC CH	Portable(TX Frequency)	Base(TX Frequency)
1	902.052464MHz	925.997470MHz
2	902.102465MHz	926.047470MHz
3	902.152465MHz	926.097470MHz
4	902.202465MHz	926.147470MHz
5	902.252465MHz	926.197470MHz
6	902.302465MHz	926.247469MHz
7	902.352465MHz	926.297469MHz
8	902.402465MHz	926.347469MHz
9	902.452465MHz	926.397469MHz
10	902.502466MHz	926.447469MHz
11	902.552466MHz	926.497469MHz
12	902.602466MHz	926.547469MHz
13	902.652466MHz	926.597469MHz
14	902.702466MHz	926.647468MHz
15	902.752466MHz	926.697468MHz
16	902.802466MHz	926.747468MHz
17	902.852467MHz	926.797468MHz
18	902.902467MHz	926.847468MHz
19	902.952467MHz	926.897468MHz
20	903.002467MHz	926.947468MHz
21	903.052467MHz	926.997467MHz
22	903.102467MHz	927.047467MHz
23	903.152467MHz	927.097467MHz
24	903.202468MHz	927.147467MHz
25	903.252468MHz	927.197467MHz
26	903.302468MHz	927.247467MHz
27	903.352468MHz	927.297467MHz
28	903.402468MHz	927.347466MHz
29	903.452468MHz	927.397466MHz
30	903.502468MHz	927.447466MHz
31	903.552468MHz	927.497466MHz
32	903.602469MHz	927.547466MHz
33	903.652469MHz	927.597466MHz
34	903.702469MHz	927.647466MHz
35	903.752469MHz	927.697466MHz
36	903.802469MHz	927.747465MHz
37	903.852469MHz	927.797465MHz
38	903.902469MHz	927.847465MHz
39	903.952470MHz	927.897465MHz
40	904.002470MHz	927.947465MHz

4. Tel. Line Voltage/Load : DC 48V ± 2V / 600 OHMS
5. Ring Frequency : 20 Hz
6. Ring Duration : 2 Sec ON, 4 Sec OFF
7. Standard Deviation : 1KHz ± 8KHz Dev.
8. Secure Code : 65536 Combinatin
9. Method of Measurement : According to EIA Standard RS-316A
10. Portable RX AF Load : 150 OHM

BASE UNIT

RECEIVER		UNIT	NOMINAL	LIMIT
1. Sensitivity 12 dB SINAD	with CCITT Filter	dBm	-115	< -107
2. Frequency Response (Ref:1kHz)	0.3kHz	dB	-4.5	-8.5~-0.5
	3.0kHz	dB	-6.0	-10.0~-2.0
3. Distortion at 1 mV RF Input		%	1.5	< 5
4. S/N ratio at 1 mV RF Input	with CCITT Filter	dB	70	60 <
5. Selectivity (NQ20dB)	6dB Bandwidth +	kHz	15	10 <
	6dB Bandwidth –	kHz	15	10 <
6. Image Rejection Ratio	SINAD 12dB with CCITT Filter			
	1st Image	dB	35	30 <
	2nd Image	dB	55	30 <
7. Tel Line Output Level (600Ω Load) (Dev: 8kHz)		dBm	-11	-14~-8

TRANSMITTER		UNIT	NOMINAL	LIMIT
1. RF Power (50Ω Load)		dBm	-7.0	-10.0~-4.0
2. Modulation Sensitivity (Dev: 8kHz)		dBm	-15.0	-19~-11
3. Frequency Response (Ref:1kHz)	0.3kHz	dB	-3.5	-6.5~-0.5
	3.0kHz	dB	3.5	+0.5~+6.5
4. Frequency Tolerance (25°C)		Hz	0	-2500~+2500
5. Code Deviation		kHz	8.0	< 11
6. Distortion		%	1.5	< 5
7. Adjacent CH Power	(+)	dB	55	50 <
	(–)	dB	55	50 <
8. S/N Ratio	with CCITT Filter	dB	35	30 <

TELEPHONE LINE	UNIT	NOMINAL	LIMIT
1. Off-hook Impedance (at 1kHz)	OHM	1000	500~1500
2. Off-hook DC Resistance (DC 40mA)	OHM	250	100~300
3. On-hook Impedance 20Hz (75Vrms)	kOHM	25	10 <
4. Minimum Ringer Input Level	Vrms	23	< 40
5. Pulse Dialing			
a. Dialing Rate (@10pps)	pps	10	8~11
b. Make Ratio (@10pps)	%	39	36~42
6. DTMF Output (@600Ω Load)			
a. Minimum Level of Single Tone			
Low Group	dBm	-7	-10 <
High Group	dBm	-5	-8 <
b. DTMF Level	dBm	-3	< 0
c. DTMF Frequency			
Row 1	Hz	697	687~707
Row 2	Hz	770	759~781
Row 3	Hz	852	840~864
Row 4	Hz	941	927~955
Column 1	Hz	1209	1191~1227
Column 2	Hz	1336	1316~1356
Column 3	Hz	1477	1455~1499
d. Signal Length	mSec	100	90 <
e. Interdigital Pause	mSec	100	90 <

PORTABLE UNIT

RECEIVER			UNIT	NOMINAL	LIMIT
1. Sensitivity 12 dB SINAD		with CCITT Filter	dBm	-115	< -107
2. Frequency Response (Ref:1kHz)		0.3kHz	dB	+5.0	+1.0~+9.0
		3.0kHz	dB	-15.0	-19~-11
3. Audio Output Level (Dev: 8kHz)		VOL. LOUD	dBV	-6.5	-9.5~-3.5
		VOL. HIGH	dBV	-10	-13~-7
		VOL. MEDIUM	dBV	-14	-17~-11
		VOL. LOW	dBV	-20	-23~-17
4. Distortion at 1 mV RF Input			%	1.5	< 5
5. S/N ratio at 1 mV RF Input		with CCITT Filter	dB	70	60 <
6. Selectivity (NQ20dB)		Bandwidth +	kHz	15	10 <
		Bandwidth –	kHz	15	10 <
7. Image Rejection Ratio	SINAD 12dB with CCITT Filter				
		1st Image	dB	30	20 <
		2nd Image	dB	45	30 <
8. Ringer Level at 30cm from Speaker					
		2 TONE VOL HI	DBSPL	85	75 <
		2 TONE VOL LO	DBSPL	72	63 <
		3 TONE VOL HI	DBSPL	75	65 <
		3 TONE VOL LO	DBSPL	62	52 <

TRANSMITTER			UNIT	NOMINAL	LIMIT
1. RF Power (50Ω Load)			dBm	-5.0	-8.0~-2.0
2. Modulation Sensitivity (Dev: 8kHz)			mV	9	6.4~12.7
3. Frequency Response (Ref:1kHz)		0.3kHz	dB	0	-4.0~+4.0
		3.0kHz	dB	-0.5	-4.5~+3.5
4. Frequency Tolerance (25°C)			Hz	0	-2500~+2500
5. Code Deviation			kHz	8.0	< 11
6. Distortion			%	1.5	< 5
7. Adjacent CH Power		(+)	dB	55	50 <
		(–)	dB	55	50 <
8. S/N Ratio		with CCITT Filter	dB	40	30 <

POWER CONSUMPTION	UNIT	NOMINAL	LIMIT
1. Base Unit			
a. Stand-by Charge Off	mA	75	< 105
b. Stand-by Charge On	mA	157	137~177
c. Talk	mA	113	< 153
2. Charge Current (at BATTERY)	mA	45	35~55
3. Portable Unit			
a. Stand-by	mA	3.0	< 4
b. Talk	mA	70	< 100
4. Battery Low Detect Voltage	V	3.3	3.2~3.4

FSK SENSITIVITY (ON HOOK)		UNIT	NOMINAL	LIMIT
1. Minimum Acceptable Signal Level	with 25dB S/N Ratio	dBm	-42	< -36
2. Maximum Acceptable Signal Level	with 25dB S/N Ratio	dBm	0	-12 <

OTHERS

1. Battery : Ni-Cd Battery 600mAH (@1.2×3=3.6V)
2. Memory : 10 Dial Memories (Name: 14 Digits, Number: 20 Digits) + 1 Redial Memory (32 Digits)
3. Operating Temperature : -10°C ~ +50°C
4. Storage Temperature : -20°C ~ +60°C

REQUIREMENTS COMPLIANCE

1. Unit is designed to fully meet with UL1459 and FCC Rules, Part 15 and 68

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